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THE

C. A. M. C.

WITH THE CANADIAN CORPS DURING THE LAST HUNDRED DAYS OF THE GREAT WAR

BY

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COLONEL, ROYAL CANADIAN ARMY MEDICAL CORPS

(Late D.D.M.S. Canadian Army Corps)

BASED ON MATERIAL AND MAPS SUPPLIED BY THE HISTORICAL SECTION OF THE GENERAL STAFF

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INTRODUCTION

Colonel Snell has laid the Medical Service and the Defence Forces of Canada under a great obligation by writing this book. It is a piece of public service which no one is better qualified to know, both from intimate personal knowledge of the events he describes and because official documents, diaries, maps, etc., have all been available to him. The result is an account of the Open Warfare stage of the Great War, the Last Hundred Days, which, in so far as it may reach the general public, will give them a good conception of the problems of the Medical Service in war, of the method by which sick and wounded are cared for, and of the devotion and intelligence with which the duties of all ranks were discharged.

From the technical point of view, this book is the first contribution made by the Canadian Medical Service to the literature of training. It is full of the kind of experience that will make it valuable, if not exactly as a Manual, yet as a source from which Tactical and Administrative problems can be studied by coming generations of Medical Officers.

J. T. FOTHERINGHAM,
Major-General.

75346—1½

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ABBREVIATIONS.

A	Adjutant General's Branch.
A.A. & Q.M.G.	Assistant Adjutant and Quartermaster General.
A.D.M.S.	Assistant Director of Medical Services of a Division.
A.D.S.	Advanced Dressing Station.
A.S.C.	Army Service Corps.
C.A.M.C.	Canadian Army Medical Corps.
C.A.S.C.	Canadian Army Service Corps.
C.C.S.	Casualty Clearing Station.
C.O.	Commanding Officer.
C.O.R.C.C.	Canadian Overseas Railway Construction Company.
C.R.T.	Canadian Railway Troops.
D.A.D.M.S.	Deputy Assistant Director of Medical Services of a Division.
D.D.M.S.	Deputy Director of Medical Services of an Army Corps.
D.M.S.	Director of Medical Services of an Army.
Fld. Amb. & F.A.	Field Ambulance.
G	General Staff Branch.
G.H.Q.	General Headquarters.
G.O.C.	General Officer Commanding.
G.S.O. 1	General Staff Officer, 1st grade.
H.Q.	Headquarters.
I	Intelligence Branch.
M.A.C.	Motor Ambulance Convoy.
M.D.S.	Main Dressing Station.
M.T. Co.	Mechanical Transport Company.
O.C.	Officer Commanding.
Q	Quartermaster General's Branch.
R.A.P.	Regimental Aid Post.
R.A.M.C.	Royal Army Medical Corps.
R.M.O.	Regimental Medical Officer.

CHAPTER I.

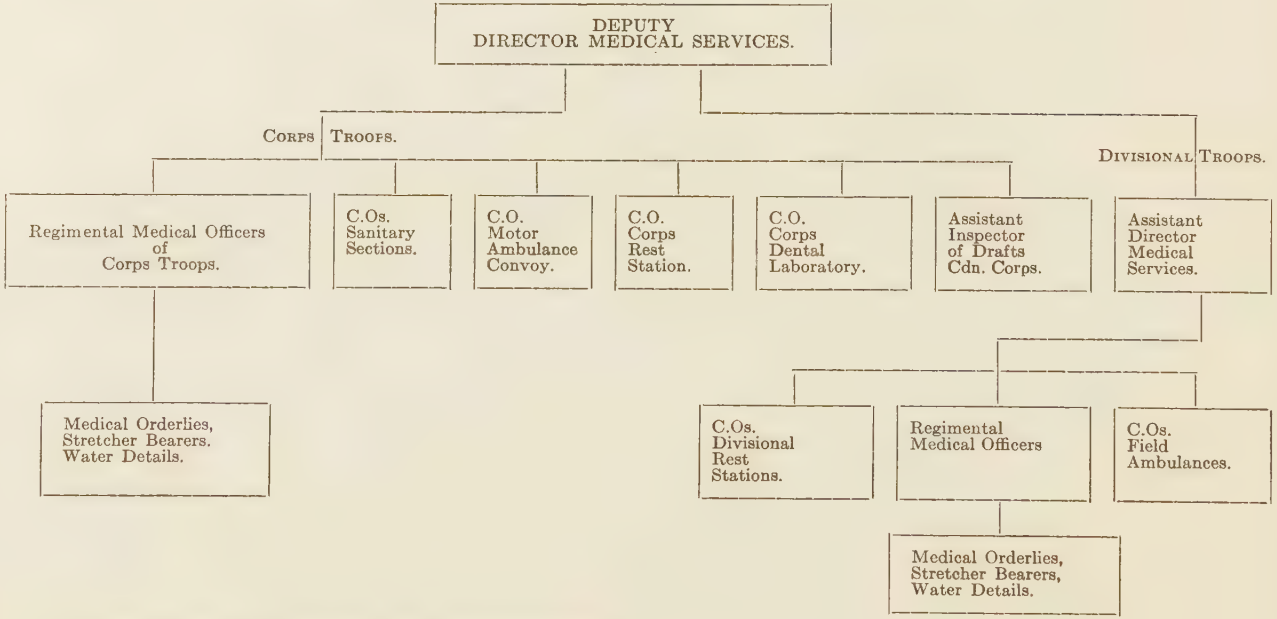
ORGANIZATION, ADMINISTRATION AND FUNCTIONS OF THE C.A.M.C.

Time and place change the ways and means of caring for the sick and wounded in battle; but the basic principles remain, so by a close study of what has actually been done it is possible to formulate a clear idea of what is likely to happen under changed conditions.

Before proceeding with the account of the Army Medical Service with the Canadian Corps during the last 100 days, it has been considered advisable to give a short description of the organization, administration and functions of the C.A.M.C. as in 1918, just previous to the battle of Amiens, in August of that year. The many officers who served in the Corps from time to time during the late war, and who may possibly read this account, will, it is hoped, bear with these introductory remarks. Perhaps the information contained may be of interest to those who had not the good fortune to serve with the C.A.M.C. in the Corps, and it may also be of some benefit to those recent graduates who have been granted commissions. All the medical units mentioned are still contained in the medical organization of the British Army, with the exception of the rest stations and dental laboratory, for which provisions may yet be made in the revised establishments.

The following chart shows the plan of organization and lines of administration, responsibility and control within the Corps.

ORGANIZATION OF MEDICAL SERVICES, CANADIAN CORPS.



NOTE.—Corps and Divisional Rest Stations operated by Field Ambulance personnel

I. Organization and Administration.

Field Ambulances.[1]—There were three with each division and one with the Corps at large. The latter operated the corps rest station. A field ambulance was a highly mobile unit which moved with, and immediately in rear of, the front line. It had 11 officers, including a dental officer, and 232 other ranks, 7 motor ambulance cars, 3 horsed ambulance wagons and complete tentage and transport for its equipment. These units were so organized as to permit their division into three sections, each complete in itself in every way. By this means a field ambulance unit could operate one, two, or three dressing stations simultaneously.

Rest Stations, Corps and Divisional.—These stations were a development, for the most part, of trench warfare, where formations held the same part of the line for long periods. They were operated by field ambulances. Their locations, while non-permanent, unlike locations of field ambulance dressing stations, were not changed as a rule as long as the Corps occupied the same sector of the front. They were usually located towards the rear of the corps or divisional area.

Organized so as to provide accommodation and medical care for minor cases, they included special clinics for certain classes of patients.

Corps Dental Laboratory.—The Dental Service of the Corps was an integral part of the Medical Services. A Corps dental laboratory was peculiar to the Canadian Corps and proved a valuable adjunct to the service. It was organized as the principal dental centre of the Corps and had a complete staff of dental mechanics for the manufacture of dentures of all sorts.

Motor Ambulance Convoy.—This was a mobile medical

[1] For detailed establishment see Appendix III.

unit with 6 officers and 120 other ranks.[2] It had 50 motor ambulance cars and its organization included a complete mobile workshop for all ordinary repairs.

Sanitary Sections.—A sanitary section was a mobile medical unit with 1 officer and 27 other ranks. Its organization provided for the operation of a workshop where sanitary appliances were constructed.

II. Functions.

The work of the medical service of the Corps was: (1) Preventive and (2) Corrective.

(1) *Preventive.*—This aspect of the service was concerned with maintaining the health of the forces and avoiding impairment of effective strength through sick wastage. It included the supervision and control of hygienic and sanitary conditions. It dealt with:—

(*a*) The hygienic and sanitary conditions of all places occupied or frequented by troops, including trenches, dug-outs, billets, barracks, mess rooms, cook houses, ablution and bath houses, etc.

(*b*) The sufficiency, quality, and wholesomeness of food, its proper storage, preservation and preparation.

(*c*) The potability and purification of water.

(*d*) The personal cleanliness of troops, and the adequacy and proper construction of bath houses.

(*e*) The sufficiency and cleanness of clothing, blankets, etc.

(*f*) The vermin disinfestation of clothing, blankets, etc., and adequacy and proper construction of disinfestors.

(*g*) The inoculation and vaccination of troops.

(*h*) The isolation of cases of infectious disease and of contacts, their disinfestation and the disinfection of billets, clothing, blankets, etc.

[2] Four officers and 17 other ranks R.A.M.C.; 2 officers and 103 other ranks attached from A.S.C. A motor ambulance convoy during this stage of the war seldom had its full number of medical officers.

(*i*) The location, adequacy and proper construction of latrines, urinals, grease traps, garbage pits, and incinerators, and their maintenance in a sanitary condition.

(*j*) The proper disposal of excreta, garbage, sullage, etc.

(*k*) The sanitary condition of horse standings and the proper disposal of manure.

(*l*) The prompt burial of dead animals.

In previous wars the sick wastage had been many times greater than the wastage of battle; the perfection of the preventive work of the medical services entirely changed this, and the incidence of sickness became less than in civil life.

(2) *Corrective.*—This aspect of the service was concerned with the treatment and care of sick and wounded, as far as this was practicable in the zone of military operations, and with the disposal of casualties.

The Canadian Corps, being a battle formation, had to be kept mobile and could not be burdened with casualties who would be ineffective for more than a short period. Therefore such casualties, whether sick or wounded, were evacuated at once from the Corps to casualty clearing stations outside the corps and the battle zone.

While the particular functions of certain medical units were of a preventive aspect, and, of others, of a corrective aspect, all members of the medical service were specifically charged with the duty of observing the incidence and curtailing the spread of disease amongst the troops and the surrounding civil population.

Deputy Director Medical Services.—This officer was the responsible adviser of the Corps Commander in all medical matters and was in complete charge of the entire medical service of the Corps. He was assisted by a Deputy Assistant Director Medical Services.

Assistant Director Medical Services.—There were four; one with each division. An A.D.M.S. was the responsible

adviser of the G.O.C. the division in all medical matters within the division, and, under the D.D.M.S., was in charge of the divisional medical services. Each A.D.M.S. was assisted by a D.A.D.M.S.

Assistant Inspector of Drafts.—This officer was directly under the D.D.M.S. His function was to hold medical boards for the purpose of classifying troops in categories according to their physical fitness. This enabled the authorities concerned to assign soldiers to the duties for which they were physically fit. The units of the Corps were reviewed in this way every two months.

Regimental Medical Officers.—The R.M.O. was the responsible adviser of the C.O. of the unit in all unit medical matters. Under the D.D.M.S., in the case of corps troops, or under the A.D.M.S., in the case of divisional troops, he was in charge of the medical service of the unit in all its aspects. By daily inspection he kept sanitary conditions under close observation. He held a daily sick parade and treated or disposed of all casualties in the unit. He was assisted by:—

Medical Orderlies.—A sergeant or corporal, one to each unit as the M.O's. orderly. These soldiers had taken the regular course of C.A.M.C. training and were proficient in dressing, bandaging, disinfection of apparatus and instruments, etc. One private to drive the medical cart.

Stretcher Bearers.—There were 16 to each battalion, with additions as necessary during battle. They were not C.A.M.C. personnel but were trained by the R.M.O. in stretcher drill and were detailed to him for duty during battle by the O.C. unit.

Water Details.[3]—Five to each unit. They were not C.A.M.C. personnel but were trained by the R.M.O. in the sterilization and handling of water supply. They carried on under his supervision.[4]

[3] Water Details were C.A.M.C. personnel attached to units until early in 1918, when they became regimental and the C.A.M.C. details were returned to field ambulances.

[4] In addition to the above, two men from each company of a battalion (eight in all) were detailed as a sanitary fatigue. These men were not directly under the orders of the medical officer, but are here mentioned as personnel concerned with the sanitary condition of the battalion area.

Field Ambulances.—The function of a field ambulance was to collect and concentrate casualties from units, give them medical care and treatment as far as this was practicable in the forward zone, and, finally, to make disposition of them either by returning them to their units for duty, or by evacuating them for further medical care and treatment to a medical formation more permanently located.

A field ambulance was the essential battle unit of the medical services. Its organization had to be kept in the highest state of perfection to withstand the heavy strain of battle. A Canadian field ambulance has handled more than 4,000 battle casualties in thirty hours and given each case good attention.

Preparatory to an action field ambulances to the requisite number were divided into sections, each of which operated an advanced dressing station. This A.D.S. collected and concentrated casualties from several units. Main dressing stations were operated by still other field ambulances, and these collected and concentrated the casualties from several A.D.Ss. and evacuated them to casualty clearing stations in rear of and outside the corps.

As a rule, remedial measures for battle casualties that were undertaken by field ambulances were confined to the sustaining of the patient in the best possible condition until he could reach the casualty clearing station, where such complete operating and other hospital facilities existed as could not be maintained in the changing battle zone. Therefore, minor operations were undertaken at main dressing stations only in cases of urgent necessity.

Rest Stations.—There arose a class of sick or wounded, most of whom were able to be up and about, where the ailment was not of a severe nature or prolonged. It was found, particularly in quieter periods, that wastage could be reduced by retaining those cases in the Corps. For

this purpose rest stations, as required, were established in the back part of the corps area. These stations were operated by field ambulance personnel.

At the corps rest station there was a skin and scabies centre and an eye, ear, nose and throat centre, where special treatment was available and where defective vision was corrected with spectacles.

Motor Ambulance Convoy.—The function of this unit was to transport wounded from main dressing stations to casualty clearing stations. It worked in close co-operation with field ambulances; to keep them clear of congestion was its first concern. Always an important branch of the medical service, the M.A.C. was indispensable in battle.

Sanitary Sections.—For purposes of sanitary control the corps area was divided into sanitary districts, each of which was allotted to a sanitary section. The number of these with the corps varied from time to time, depending upon the size of the corps area.

The duties of Officers Commanding sanitary sections were inspectorial and advisory. Sanitary districts were subdivided into smaller sanitary areas and a sanitary inspector detailed to each. Under the supervision of the C.O. of the section, these inspectors watched all sanitary conditions, calling the attention of Commanders of units, Town Majors and others responsible, to anything requiring correction.

Sanitary sections advised concerning the location and construction of sanitary apparatus, such as latrines, urinals, grease traps, vermin disinfestors, etc.

They kept close watch over the matter of infectious diseases and contacts, advised concerning their isolation and the disinfection of billets, clothing, blankets, etc.

Each sanitary section had a workshop, to which units detailed mechanics to construct sanitary apparatus under expert supervision.

Corps Dental Laboratory.—This formation operated a clinic for more difficult dental work in general.

In addition, it operated a complete denture manufactory where all dentures were made.

With each field ambulance there was a dental officer to whom cases were sent from units. He dealt with routine treatment, fillings, etc.

If a denture was required he took the impression and despatched it to the dental laboratory, where the denture was made and sent to him for fitting. A denture could be furnished and fitted within four days.

Processes in Dealing with Typical Casualties :

A Sick Casualty.—The soldier reported Sick to the medical orderly room of the unit, where he was examined by the regimental medical officer. If his ailment was slight and would not last more than two or three days, he was treated by the R.M.O. and kept at duty or excused duty, as requisite.

More severe or prolonged cases were reported to a field ambulance, which collected the patients and admitted them to its station. If he was likely to recover within a few days, he was retained by the field ambulance and then discharged to his unit for duty.

Cases of minor disease, where unfitness would extend over but two or three weeks, especially those who could be up and about; cases of skin disease and scabies; cases requiring correction of vision, were sent by the field ambulance to a rest station. From there they were discharged to their unit for duty.

Severe and prolonged cases requiring hospital care and treatment were evacuated by the field ambulance to a casualty clearing station, being transported by motor ambulances.

During battle, field ambulances retained no sick.

A Wounded Battle Casualty.—Each soldier carried a *First Aid* dressing. It was applied by himself, by a comrade or by the stretcher bearers. If he did not walk in, he was picked up by the regimental stretcher bearers and carried to the *Regimental Aid Post.* There the regimental medical officer examined him and adjusted or changed the dressing, and if necessary gave him morphia to counteract shock. He was given hot drinks and stimulants, was tagged with his identity, diagnosis and medication, and made warm and comfortable until evacuated.

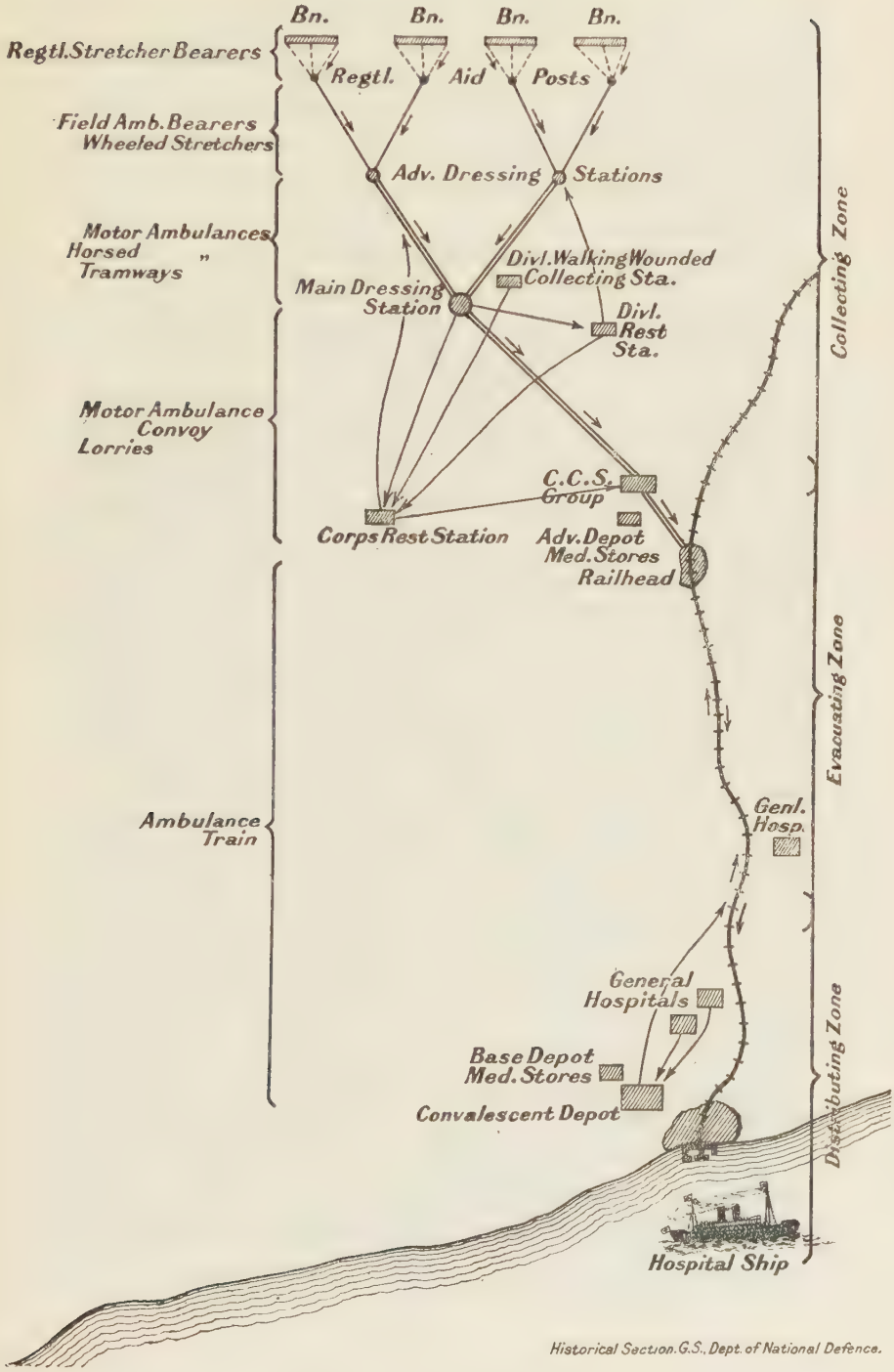
He was evacuated to an *Advanced Dressing Station,* being transported, depending upon arrangements provided, by stretcher bearers, wheeled stretcher, horsed ambulance, motor ambulance or by tramway. There he was examined and had his dressings changed, or adjusted. Hot drinks or stimulants, as necessary, were administered; his tag received any additional notes of medication and he was made warm and comfortable until evacuated.

He was evacuated to a *Main Dressing Station,* being transported by field ambulance, motor transport, lorry or tram, as arranged. There he was dealt with as in the A.D.S. and, in addition, he received inoculation against tetanus. The tag was removed and a field medical card was attached to him, which gave his identity and full record. In cases of urgent necessity operations were performed.

From main dressing stations cases were evacuated outside the corps to *Casualty Clearing Stations.* Transport was by cars of the motor ambulance convoy, supplemented by lorries for walking wounded or by railroad when available.

The diagram, on the opposite page, shows the line of evacuation from the R.A.P. to the Base.

MEDICAL ARRANGEMENTS IN THE FIELD.



Historical Section. G.S., Dept. of National Defence.

CHAPTER II.

WITHDRAWAL FROM THE LINE AT ARRAS AND MOVE TO THE AMIENS AREA.

Reference Map 1.

During the early months of the year 1918, the Canadian Corps held the line in front of Vimy Ridge from just north of Lens to a point opposite Willerval. The medical arrangements of this area from front to rear were very familiar to the personnel of the C.A.M.C., who had constructed practically all of the forward posts during the year 1917. A very complete system for the evacuation of wounded had been worked out for the whole front, and as each division in turn had held the different sectors, all were familiar with the facilities available, and were confident that the service could cope with any situation arising from an attack by the enemy.

As it was fully expected that a German offensive would be staged on the western front early in 1918, and that an attempt would be made to win back Vimy Ridge, which was such an effective barrier to any extensive advance by the enemy, the C.A.M.C., in conformity with the general defence scheme of the Corps, made preparations to meet all possible contingencies. Reserve dressing stations were ear-marked and improvements made in order that these should be available if required. Routes of evacuation were reconnoitered to be used in the event of the ridge defences being turned from the north or from the south. A large reserve of all medical and surgical supplies was held in the rear corps area.

On the 21st of March the expected happened, and the enemy broke through far to the south of the area occupied by the Canadians. The anxious time for the next week saw the divisions of the Corps disposed in front of and around Vimy Ridge. During this early German offensive the Corps was not involved in any serious fighting, but, on the 28th of March and succeeding days, when a determined effort was made to turn Vimy Ridge from the south, the Canadian divisions not in the line were in support to the British troops heavily engaged with the enemy to the south and east of Arras. During this time medical units were brigaded and ready to take up the reserve positions already selected, or to advance and serve the troops in the event of a counter-attack. However, the troops in the line at the time were able to stem the attack and No. 10 Field Ambulance, 3rd Division, which was serving a brigade of the 56th (London) Division on the 28th of March in the Roclincourt area, was the only medical unit actually engaged. This field ambulance was relieved on the night of the 29th by a unit of the 56th Division.

During the last uncertain days of March, from the 27th to the end of the month, the medical units of the Corps were under several different formations; thus, on the 27th the A.D.M.S. of the 3rd Division reported to the D.D.M.S. XIII Corps; the 1st and 2nd Divisions were under the VI Corps of the THIRD ARMY, and the 4th Division was under the XVII Corps. This condition of affairs was the result of pressure of circumstances and did not last long, as on the 30th of the month the 3rd and 4th Divisions came under the Canadian Corps, and on the 7th of April the 1st Division also rejoined. The 2nd Canadian Division, which had gone into the line at Neuville-Vitasse, remained in the VI Corps, THIRD ARMY, and for a period of nearly three months the divisional medical services did much to enhance

the good name of the Canadian Army Medical Corps by the business-like way in which order was restored from the chaotic conditions consequent on the hurried adjustments due to the German advance.

During the month of April, while the Corps was in the forward area, much work was done towards improving the dressing stations hastily occupied during retirement in March. The medical units of the divisions occupying the line in front of Roclincourt and to the north continued defensive medical arrangements, while the 1st and 2nd Divisions, the latter under the VI Corps, improved existing dressing stations and built new ones in the forward area.

Early in May the divisions of the Corps, namely, 1st, 3rd and 4th, were relieved in the line, and the front was handed over to the XVII and XVIII Corps. Upon relief the Canadian Corps moved into the reserve area, where the headquarters of formations were located as follows:—

Corps Headquarters—Bryas.
1st Division—le Cauroy.
3rd Division—Norrent-Fontes.
4th Division—Monchy-Breton.

During the months of May and June and part of July these Canadian divisions carried out extensive training, and the medical units had an opportunity to overhaul all equipment, discard excess baggage, and see that all transport was in shape for any emergency. Everything possible was done to get the men into good physical condition, as well as to improve them in their work by lectures, drills, etc. Opportunity was given to each field ambulance to take part in the tactical exercises of its division, and officers commanding units were called upon to take complete charge of the medical arrangements for one force. In connection with each day's manœuvres medical problems were worked out and much was learned regarding the work

with troops in open warfare. This was to be of great value when, later in the summer, such conditions became a reality.

During the long period of rest and training, while practically every division in the British Army had been engaged in heavy fighting at least once, and in many cases two and three times, many members of the Corps had a feeling of having things "pretty easy." All units were now up to strength, the men in good condition, well trained and eager to do their share. Reinforcements for all units were being trained in the divisional wings farther to the rear, and altogether we came to look upon ourselves as a hitting force which would very shortly be used, but when and where was known only to those in high places. Speculation was rife as to when the Canadian Corps was to be employed and in what part of the line. There were rumours to the effect that we were going south to go in with the French, while others had it that we were going north.

During the last week in June the 3rd Canadian Division relieved the 2nd Canadian Division in the line on the VI Corps front; this relief being completed on the 1st of July. The medical units of the 2nd Division, therefore, had a much shorter time for training and refitting than the units of the other three divisions, for on the 10th of July a warning order for the Corps to move to the forward area was received, and by the 15th all divisions were again in the line in the neighbourhood of Arras. This move of the Corps to its old part of the front was accepted by divisions with a certain feeling of regret and disappointment, as greater things than merely holding the line had been expected. However, as after events were to show, the return of the Canadians to this particular section gave the German much food for thought, and allowed him to expect an offensive in this quarter. While the Canadians

were in the back area for the long period of May and June, it is understood that the enemy was much perturbed as to where the Canadian Corps was and what its intentions were, so when the Corps returned, it no doubt tended to further mislead and deceive the enemy.

During the latter part of July we have the Canadian Corps holding the line with corps headquarters at Duisans, and the divisions distributed along the front as follows:—

4th Canadian Division—Gavrelle-Oppy Section.
2nd Canadian Division—Telegraph Hill Section.
1st Canadian Division—Feuchy-Fampoux Section.
3rd Canadian Division—Neuville-Vitasse Section, still under the VI Corps.

Although the Canadian Corps had only completed taking over the line on the 15th of the month, on the night of the 18/19th the Telegraph Hill Section, held by the 2nd Division, was taken over by the 1st Division, and the 2nd Division moved into reserve in the le Cauroy area, and Nos. 4, 5 and 6 Field Ambulances were in the corresponding brigade areas and located as follows:—

No. 4 Field Ambulance at Avesnes-le-Comte.
No. 5 Field Ambulance at Grand Rullecourt.
No. 6 Field Ambulance at Givenchy-le-Noble.

These medical units had had a very short time out of the line during the long rest period of the Corps, and now, having a week or more in a quiet reserve area, made the most of it by generally overhauling and refitting.

The 3rd Division was the next to be relieved on the 26th, when the field ambulances moved with brigades to the reserve area and were located as follows:—

No. 8 Field Ambulance at Wanquetin, with the 9th Infantry Brigade.
No. 9 Field Ambulance at Ecoivres, with the 8th Infantry Brigade.
No. 10 Field Ambulance at Warlus, with the 7th Infantry Brigade.

It will now be seen that two Canadian divisions were out and two in the line and all under the Canadian Corps. On the 30th the command of the front was handed over to the XVII Corps, leaving the 1st and 4th Canadian Divisions in the line under this corps. Up to this time, although it was generally understood by divisional and brigade staffs that the Corps was due for a move, nothing definite was known; but information had been circulated to the effect that the destination was with the SECOND ARMY in the north. In the light of later knowledge it is easily understood why this impression became almost a conviction. In order to mislead the Germans certain units of the Corps were sent north, and put in the line in the region of Kemmel, where they immediately made their presence known by raiding the German trenches and incidentally losing parts of equipment and badges distinctive of Canadians. Wireless messages, in an easily decipherable code, were sent out announcing the presence of certain Canadian units. Great was the necessity for secrecy as to the move of the Canadian Corps, the one large body of British troops which, up to this date, had not been engaged since the German offensive on the 21st of March, and the precautions taken by G.H.Q. proved that the British had learned much in the art of deception. Canadian medical units affected by this camouflage move were Nos. 1 and 4 Casualty Clearing Stations, which for the last year or more had been established in conspicuous hut encampments at Pernes. These C.C.S. sites were well known to the German airmen, so that when the units with all equipment moved to Arneke, behind the SECOND ARMY, and set up enough canvas to carry on the work of caring for many wounded, it is presumed that the German general staff was kept well informed of the apparent move of the Canadian Corps to the north.

On the 30th of the month, as already stated, the Canadian Corps handed over the line to the XVII Corps and established headquarters at Molliens-Vidame in the FOURTH ARMY area, and on this date the move of divisions to the new area began. In dealing with medical units each field ambulance will be followed to its destination up to the time of reaching the concentration area near Amiens. The 2nd and 3rd Divisions were already out of the line and were the first to move. In many cases the O.Cs. of units were still ignorant as to their destination, and it was not until they actually arrived in the area south and west of Amiens that the fact that they were not going north was fully realized.

On the evening of the 29th No. 4 Field Ambulance, 2nd Division, received a warning order, and at 7 a.m. on the 30th the unit marched from Avesnes-le-Comte to Petit Houvin on the St. Pol-Frévent railroad line, where it entrained at 1 p.m., and arrived at Hangest-sur-Somme at 5.30 p.m. The transport of this unit reported to the rendezvous of the 4th Infantry Brigade transport and proceeded by night marches to the new area. Upon arriving at Hangest-sur-Somme this field ambulance marched to Saisseval, where it arrived at 11.30 p.m. and rested on the 31st. On the 1st August it moved to Saissemont, just a short distance away, where the horse transport with all equipment joined up. On the night of the 3rd, at 11 p.m., the unit accompanied the 4th Infantry Brigade to the Cagny-Longeau Area, and the field ambulance was billetted in St. Acheul, just south and east of Amiens.

No. 5 Field Ambulance, which had been resting at Grand Rullecourt, received a warning order on the evening of the 29th and moved on the 30th, at 7 a.m., to Fosseux, where the men embussed and moved by way of Doullens, Beauval and Picquigny to Briquemesnil. During the day

the men rested in bivouac until 9.15 p.m., when they moved to Breilly, which was reached at 11.30 p.m. This unit remained in Breilly until the evening of the 4th August, when it moved to Amiens and shared a large building, the Ecole Normale, with the 13th Australian Field Ambulance, where a small detention hospital was established for the sick of the division.

No. 6 Field Ambulance on the morning of the 30th, at 5 a.m., marched from Givenchy-le-Noble to Frévent, where it entrained and arrived during the night 30/31st at Ailly-sur-Somme, from which place it marched to Dreuil-les-Amiens. While at Dreuil-les-Amiens, the horse transport rejoined on the 2nd, and at 9.30 p.m. on the 4th, the whole field ambulance marched to Saleux where it arrived at 3.30 a.m. on the 5th. On the 6th the approach march to Longeau was completed.

The 3rd Division Headquarters moved from Hermaville to Bouquemaison, just north of Doullens, on the 30th of July, and the field ambulances, with brigades, started the move to the south. No. 8 Field Ambulance, which was with the 9th Infantry Brigade, marched from Wanquetin to Warluzel on the 29th, where the night was spent and the march to Doullens completed during the early part of the night 30/31st. This unit entrained at Doullens and arrived at Saleux early in the morning of the 31st. After several hours rest, the men were loaded into lorries and completed the journey to the 9th Infantry Brigade area, where the unit was located in the picturesque village of Belloy St. Leonard. Having arrived there late on the night of the 31st, and rested until 8.30 p.m. on the 2nd of August, it started on the long march to the Asylum, just south of Amiens, arriving there at 6.30 a.m. on the 3rd.

The difficulties attending the move of a large body of troops such as the Canadian Corps, when secrecy was a

prime factor and railway facilities not of the best, are well exemplified in the moves of No. 8 Field Ambulance. It detrained at a point close to its final destination in the concentration area of the Corps, but some 25 miles or more from its brigade area for the time being. It was transported in lorries over very dusty and dark roads to its billets, from which, after a rest of thirty-six hours, it was forced to march some 30 miles back along the same roads to practically its detraining point. Such is the game of war, and while this unit may have been subjected to extraordinary conditions, the wonder is that the transfer of the Canadian Corps so great a distance in such a short space of time, and with such secrecy, was accomplished with so little friction. It speaks volumes for Canadian staff work.

No. 9 Field Ambulance, attached to the 8th Infantry Brigade, left Ecoivres at 6.30 a.m. on the 30th and marched to Saulty, arriving at 6.30 p.m. After a few hours' rest, at 1.30 a.m. on the 31st the march was resumed to Doullens, which was reached at 6.30 a.m. This unit entrained immediately and was transported to Prouzel, arriving late in the morning of the 31st, and immediately marching to Bois de Bacouel, where it bivouacked until the night of August 1st. A short move to Creuse was made during the early hours of the night 1/2nd of August. On the 2nd the horse transport rejoined the unit, and on the night of the 3/4th the whole field ambulance marched to the Amiens Asylum.

No. 10 Field Ambulance, attached to the 7th Infantry Brigade, during the early evening of the 30th of July marched from Warlus to Warluzel. Upon arrival here at a quite late hour and the men tired, instructions were received from brigade headquarters for the unit to entrain at 2.45 a.m. on the 31st at Doullens, 15 kilometres distant. This was a tall order, but the difficulty was overcome by using all available motor ambulances of the unit as well

as those of No. 8 Field Ambulance, which fortunately was billetted in the same village, and whose motor ambulance cars had not as yet reported to the divisional motor ambulance rendezvous. The personnel of No. 10 Field Ambulance reached Doullens, entrained at the appointed time, and arrived at Saleux at 9 a.m. on the 31st. After a rest of an hour and a half the unit marched to Bois-de-Hébécourt, where it remained during the 1st and 2nd of August. At 9.30 p.m. on the 2nd the march was continued to Sains-en-Amienois, which was reached at 11.30 p.m. On the evening of the 5th of August the unit moved to Boutillerie, where it arrived at 11.45 p.m. and established headquarters in the chateau.

While the 2nd and 3rd Divisions were on the move to the south, the 1st and 4th were in process of being relieved from the line in front of Arras. No. 1 Field Ambulance was relieved of all forward posts on the 31st of July, and at the A.D.S. Ecole des Jeunes Filles in Arras at 3.30 p.m. on the 1st of August. On the same afternoon the unit marched to Grand Rullecourt, which place was reached at 7.30 p.m. On the 2nd of August the warning order was received and at 9.30 a.m. on the 3rd the unit marched to Petit Houvin, where it entrained and left at 6.30 p.m. At 4.30 a.m. on the 4th the detraining point at Nesle-Normandeuse was reached, and at 7 a.m. the march to Villers-Campsart was started, and was completed four hours later. The order for the 1st Field Ambulance to move with its brigade to Boves Wood on the night of the 5/6th of August was cancelled so far as the destination of the ambulance was concerned, and at 4 a.m. on the 6th the personnel arrived at the Asylum and one hour later the transport also arrived at this point.

No. 2 Field Ambulance, which was in reserve at Agnez-les-Duisans, marched on the 2nd of August to Givenchy-

le-Noble. At 6 p.m. on the 3rd the personnel and horsed transport moved to Ligny St. Flochel, where they entrained, and on the morning of the 4th at 5 a.m. detrained at Senarpont, and later in the day marched to Hallivillers, where the whole unit rested during the 5th and 6th. On the evening of the 6th the move was continued by bus to the Asylum, which was reached at midnight 6/7th.

During the day of the 1st of August the headquarters of No. 3 Field Ambulance moved back to Haute-Avesnes, by 8 p.m. all forward posts were handed over to the 2/2 and 2/1 London Field Ambulances and the personnel from these forward posts joined headquarters by midnight. On the 2nd the unit moved to Avesnes-le-Comte, where billets were secured for the night. At 11 a.m. on the 3rd the personnel marched to Fosseux, embussed at 1 p.m., and reached Frévent at 2.30 p.m. The horsed transport had proceeded to Frévent earlier in the day, when the whole unit, except mechanical transport, entrained and reached Vieux-Rouen-sur-Bresle at 6 a.m. on the 4th. At 9.30 a.m. the same day the unit marched to Belloy St. Leonard, where it arrived at 3 p.m. and was joined by the mechanical transport. The unit was now complete. On the 5th the horsed transport moved at 4.30 p.m. en route for Boves Wood, while the unit marched at 8 p.m. to the brigade embussing point at Hornoy. This convoy consisted of 197 lorries and busses and left Hornoy at 12 o'clock midnight for the Boves area. No. 3 Field Ambulance arrived at St. Fuscien at 6 a.m. on the 6th and marched to the town of Boves, where billets were secured.

The relief of the 4th Division took place at the same time as that of the 1st Division, and the move of the medical units to the south was carried out so that they arrived in the concentration area one day after those of the 1st Division.

On the 31st of July No. 11 Field Ambulance was relieved of all forward stations and moved to Marœuil, where it parked for the night and moved the next morning at 9 a.m. to Warlus, arriving at 11 a.m. Here it was brigaded with the 11th Brigade. On the 3rd of August the personnel embussed on the road between Warlus and Wanquetin at 8.45 p.m. and travelled by way of Doullens to Woirel, arriving there at 5 a.m. on the 4th. The unit rested during the day and left at 11 p.m. by march to Tailly, arriving at 2 a.m. on the 5th; it rested on the 5th and at 1 a.m. on the 6th started the long march to Prouzel, which was reached at 12.15 p.m. The latter move was between 20 and 25 miles and demonstrated the marching ability of all ranks. On the night of the 6th at 9 p.m. the march was continued to the Asylum, which was reached at midnight. The moves of this unit from Tailly to Prouzel and thence to the Asylum, just south of Amiens, is another instance of the camouflage practised during the concentration of the Canadian Corps for the battle of Amiens. It would have been the logical and easier way to have moved the unit straight across country to its destination, but instead the long march from Tailly to Prouzel was made, part of which was done in daylight and then the shorter approach march to the Asylum made during the hours of darkness.

On the 1st of August No. 12 Field Ambulance was relieved at the dressing station at Agnez-les-Duisans and on the 2nd the unit marched to the embussing point, and thence by lorry to Aubigny. The personnel entrained at 9 p.m. and arrived at Tailly at 3 p.m. on the 3rd. For the remainder of the 3rd and on the 4th of August the unit rested at Tailly, and at 8.15 p.m. on the latter date it marched to Saissemont, arriving at 2 a.m. on the 5th. Again on the 5th rest was the order of the day, but at

9 p.m. the march was continued to Saveuse, which place was reached at 11.45 p.m. At 8.30 p.m. on the 6th the final stage of the approach march was made and the Asylum was reached at 11.45 p.m.

During the night 31st of July/1st of August No. 13 Field Ambulance had completed handing over the front to the 3/2 West Lancs Field Ambulance of the 57th (West Lancashire) Division, and at 8.30 a.m. it marched to Wanquetin. On the 2nd of August the personnel embussed at Wanquetin and proceeded to Aubigny, where they entrained at 1.15 p.m. and arrived at Allery during the morning of the 3rd. On the 4th at 9 p.m. the unit marched to Soues. At 9 p.m. on the 5th the march was resumed to Saissemont, and on the night 6/7th the unit proceeded to the Asylum.

Having now followed the field ambulances of the various divisions from the Arras front through the different moves to their locations in the concentration area, and knowing that the combatant troops to which these units were attached were moved by the same stages, and all moves done by night, we can readily understand why the Germans were deceived and had neither knowledge as to the whereabouts of the Canadian Corps nor any suspicion that an offensive was being prepared on this particular front. We have seen that the detraining points of brigades of the 2nd and 3rd Divisions, the first to be transferred, were at least 20 miles as the crow flies west and south of Amiens, which city was another 10 miles from the front line; and that the detraining points of the 1st and 4th Divisions were at least 30 miles in a straight line, and possibly 40 miles by road, west of Amiens.

During the move from the detraining points to the forward area, every precaution was taken to keep the troops under cover by daylight, and to have transport parked and horse lines sited out of view of enemy airmen. Strict

orders were issued to all units as to the necessity for secrecy and precautions to be taken, and the result on the 8th of August was ample proof of the keenness with which all ranks obeyed instructions and entered into the spirit of the occasion.

Upon the completion of the move of the divisional medical units up to the time of taking over the line, the locations of the field ambulances, and the dates upon which each arrived were as follows:—

No. 4 Field Ambulance at St. Acheul, 4th of August.
No. 5 Field Ambulance at Ecole Normale, Amiens, 5th of August.
No. 6 Field Ambulance at Longueau, 6th of August.
No. 8 Field Ambulance at Asylum, 3rd of August.
No. 9 Field Ambulance at Asylum, 4th of August.
No. 10 Field Ambulance at Boutillerie, 5th of August.
No. 1 Field Ambulance at Asylum, 6th of August.
No. 2 Field Ambulance at Asylum, 6th of August.
No. 3 Field Ambulance at Boves, 6th of August.
No. 11 Field Ambulance at Asylum, 7th of August.
No. 12 Field Ambulance at Asylum, 7th of August.
No. 13 Field Ambulance at Asylum, 7th of August.

THE AMIENS ASYLUM.

The Lunatic Asylum, situated about a mile and a half south of Amiens on the road to Dury, during the period just previous to the 8th of August and the succeeding days, was used by many of the medical units of the Canadian Corps as a billet. This group of buildings was in the 3rd Canadian Divisional area; when first inspected by the A.D.M.S. of the division a French medical unit was preparing to move out, and the officer in charge was greatly excited because combatant troops of the Canadian Corps had taken up quarters in part of the compound. This French officer insisted that the Asylum had always been occupied by medical units for hospital purposes, and that it was inviting shell-fire to permit other troops in the vicinity.

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Upon investigation it was found that the 3rd Divisional Machine Gun Battalion was located in one of the asylum buildings, but these troops, upon representations being made to divisional headquarters, were given billets elsewhere, much to the relief and satisfaction of the French medical officer and the caretaker of the grounds. It was at first intended to use the Asylum for all medical units of the 3rd Canadian Division, but upon inspecting the different buildings and looking over the grounds, it was seen that there was ample accommodation for most of the field ambulances of the Corps. The location was very central and the D.D.M.S. of the Corps decided to establish a medical centre at this point, where surplus baggage, transport of units and reserve medical stores should be kept. As has been seen, seven field ambulances of the different divisions were accommodated at this point—the first arriving on the 3rd of August, and each day up to the 7th bringing in new units. All were well housed and the transport concealed under trees or overhead protection erected along the wall surrounding the grounds. The O.C. No. 9 Canadian Field Ambulance was placed in charge —a sort of area commandant—and was made responsible for allotting buildings for billets and for hospital accommodation for each division. There were in all twenty large buildings, each with running water, shower baths, good cooking and sanitary arrangements; certain buildings were suitably arranged for hospital wards, others provided billets for personnel.

Medical Arrangements During Move to the South.

When out of the line during a period when no special training was being carried out, all units devoted much time to sports and recreation of all kinds. Nevertheless at

such a time, while medical units competed in all divisional sports, and usually with much success, the sick were ever with us and had to have attention. Divisions in or out of the line, on the move or resting, always produced a certain percentage of sick and the move to the Amiens area was no exception. During the month of June a mild form of influenza had made its appearance amongst the troops, and had caused considerable worry to the medical authorities. By adopting every precaution, and owing to the excellent condition of the men, this disease made little headway; but by the end of July there were still some cases throughout the different units. When the move to the south began a field ambulance, like any other unit, had to conform to the march table of its brigade, but at the same time was called upon to collect sick from the different battalions, etc., and was responsible for evacuation to C.C.S. or whatever other disposal might be necessary. This work laid great strain on both horse and motor transport and necessitated opening dressing stations or inspection rooms at each billet when a stop of any length was made. Casualty clearing stations were from eight to twelve miles distant in all cases, and as the M.A.C. which had been serving the Corps was not moving south, evacuations had to be made by the motors of field ambulances.

As each field ambulance was withdrawn from the line and brigaded it became responsible for all medical arrangements for the brigade. Horsed ambulance wagons were detailed to follow battalions on the march to the entraining or embussing points. Upon completion of the march, these wagons were required to rejoin their unit and to proceed to the brigade transport rendezvous for the march to the new area. As it was not always possible nor practicable for horsed ambulances to accompany battalions,

motor ambulances took on this work. As soon as the troops of a brigade were entrained, the officer in charge of the motor ambulances of the field ambulance reported with his cars to the divisional motor ambulance rendezvous, from which points the cars of the divisions proceeded independently. Each A.D.M.S. ordered two motor ambulances from each field ambulance of his division to report to him immediately after all troops of brigades were entrained, and the officer in charge of these cars was instructed to report to the staff officer at the detraining point, in order to be on hand in the event of accidents or sickness having occurred amongst the men whilst en route. Each officer detailed for this work was given a copy of the medical arrangements as far as were known for the new area. The most important part of any medical arrangements on moving into a strange part of the line, as on this occasion, was the position of the casualty clearing stations in the army area. Men going sick must either be retained with the unit or evacuated to a C.C.S., as it was impossible for field ambulances to care for patients when units were on the march each night. Undoubtedly men with slight ailments were lost to the Corps, who would, in ordinary times, have been kept in the area until again fit for duty. However, all ranks were so keen and in such good physical condition that the number lost in this way was very small.

When divisional headquarters arrived in the concentration area, the A.D.M.S. immediately got in touch with the D.D.M.S. of the Canadian Corps, who had opened his office in Molliens-Vidame on the 30th of July, when more detailed information regarding medical arrangements was obtained. Each A.D.M.S. then issued his own medical instructions to come into effect immediately. This information was received by field ambulances, divisional

and brigade headquarters, by the time units had arrived at their final destination before moving forward to battle positions, and was to obtain until complete arrangements for the battle were made and orders issued.

As can be seen from the nature of this move from one Army to another, and to an entirely new part of the front where the locations of medical establishments were not well known, much, of necessity, had to be left to the good judgment and initiative of the field ambulance commanders in caring for and disposing of the sick of brigades. Each fighting man was needed and had to be kept with his unit if at all possible. Great credit is due to the transport sections of field ambulances for the cheerful and efficient manner in which the sick and injured were delivered to units after long marches, or evacuated to C.C.S. when necessary. Motor ambulance cars particularly, owing to their ability to cover long distances, were worked early and late, and the overhauling these vehicles had received while in rest allowed them to be kept on the road with a minimum of repair during this time.

As the divisions with the accompanying corps and army troops[1] concentrated in the forward area, each village and wood was literally crammed with men and horses. Particularly was this the case in Bois de Boves, Bois de Gentelles and Bois de l'Abbé. French colonial troops had occupied this area just previous to the Canadians taking over, and the sanitary conditions were far from good; in fact, they could not have been much worse. It was hopeless to attempt to make any great improvement in such a short time when it was necessary to keep under cover during daylight. There had been a certain amount of dysentry amongst the French troops who had just left,

[1] See Appendix IV for order of Battle of Canadian Corps.

and the sick returns from the Canadian divisions soon showed a certain number of suspicious cases of diarrhoea. Fortunately it was not necessary to live long under these conditions, and soon Canadian troops were following up the enemy over a free and open country, which had not been occupied by the Germans for any length of time and where the sanitary conditions were passably fair. As the Canadian Corps was still responsible for the rear area, even after our troops had advanced some 8 or 9 miles, two Canadian sanitary sections, Nos. 1 and 5, were brought down from the Arras front to supervise the cleaning up of the whole area.

CHAPTER III.

TAKING OVER THE LINE, MEDICAL ARRANGEMENTS AND NARRATIVE OF THE BATTLE, AUGUST 8.

Reference Map 2.

As each A.D.M.S. received information from the G. branch of his division about the front to be taken over and the date of attack, he immediately got in touch with the A.D.M.S. of the division to be relieved. The 4th Australian Division had taken over from French troops just prior to the Canadians moving south, and was holding the line on a wide front until Canadian troops were available for the relief. On the 3rd of August, therefore, the A.Ds.M.S. of the 2nd and 3rd Canadian Divisions called upon the A.D.M.S. of the 4th Australian Division and arranged to look over the line early on the morning of the 4th. Later in the day of the 4th, conferences were held of the three field ambulance commanders of each of the 2nd and 3rd Divisions, when the general scheme for divisional evacuation was talked over, and each unit given to understand what would be expected of it during the coming fight. During the afternoon of the 4th advance parties of No. 6 Field Ambulance, 2nd Division, and No. 8 Field Ambulance, 3rd Division, went forward to look over the medical posts and become familiar with their respective fronts. It was originally intended that the relief of the Australians by Canadians should take place on the night of the 5/6th, but it did not actually occur until the night of the 6/7th. However, the relief by the medical units of

the 2nd and 3rd Canadian Divisions was carried out according to the original plan, and Nos. 6 and 8 Field Ambulances took over the front on the night of the 5/6th. As the attack was to be delivered by three divisions with four brigades in the line, the existing medical posts were not sufficient in number. Two brigades of the 3rd Canadian Division were to take over from one brigade of Australians, while one brigade of each of the 1st and 2nd Divisions were taking over from the other Australian brigade.

Previous to handing over the line the Australians were clearing wounded to their M.D.S. in Amiens, with their A.D.S. at Bois de Gentelles and their car post in Domart, where a Ford ambulance car was stationed for emergency work, and was apparently allowed by the Germans to go and come unmolested, even in daylight. Upon the taking over of this front by No. 8 Field Ambulance, a Ford car was borrowed from the 2nd Division in order to avoid arousing the suspicion of the enemy by using a car of a larger make.

On the morning of the 5th the D.D.M.S. Corps and the A.D.M.S. 3rd Division looked over the Boves area for a suitable site for a corps M.D.S., as the station then being used by the Australians was considered too far back for an offensive operation. Nothing suitable was found in the town of Boves, and it was finally decided to use an old chateau located at M.36.c.8.6. This site was under observation by German balloons and had been used as a relay car post up to this date. The chateau itself had been badly smashed by shell fire, but was still sufficiently intact to allow of its being used. There were good out-buildings, and in the grounds were enough trees to afford very fair protection from view of the enemy. On the afternoon of the 5th No. 8 Field Ambulance moved headquarters and all transport from the Asylum to this site, and took over

from the 12th Australian Field Ambulance. No. 8 Field Ambulance, therefore, established a temporary M.D.S. for the Corps until No. 1 Field Ambulance of the 1st Division moved in on the afternoon of the 7th. On the night of the 5/6th the O.C. No. 8 Field Ambulance completed taking over the A.D.S. at Bois de Gentelles and the car post at Domart, and thus served Australian troops for the next twenty-four hours.

On taking over the line on the left the A.D.M.S. 2nd Division was confronted with difficulties in arranging his evacuation scheme. As may be seen from the map, the Canadian Corps area was *V* shaped, with the apex toward the point where the Amiens-Roye and the Amiens Villers-Bretonneux roads meet. As all this area had been held by the Australian Corps, the wounded from this left sector, which was being taken over by the 2nd Canadian Division, had been evacuated to medical posts on the Villers-Bretonneux road and out via that road. Upon establishing inter-corps boundaries the Villers-Bretonneux road was made exclusive to the Canadian Corps, and the A.D.M.S. 2nd Division was informed that he could not use it. It was therefore necessary for him to reconnoitre and arrange a line of evacuation across country to the Amiens-Roye road and thence to the M.D.S. at the White Chateau. The difficulty of the situation was appreciated by the A.D.M.S. of the Australian division on the left, who offered to share his dressing stations on the Villers-Bretonneux road with the 2nd Canadian Division; but as this would have necessitated using the prohibited road, and as the G. branch of the two corps were strongly in favour of living up to the letter of the law, the A.D.M.S. 2nd Division established an A.D.S. at (Clockface) Bois-de-l'Abbé, 0.32.a.8.4. This A.D.S. on the evening of the 7th was moved forward to Cachy, U.8.b.9.9.

The A.D.M.S. 1st Division, the central division taking part in the initial attack, arrived in the area late, but in time to look over his part of the line on the 6th, just previous to Canadian troops taking over. As his division was attacking on a one brigade front, between the 3rd and 2nd Divisions, and his natural line of evacuation was to the Roye road, it was decided that he should use the medical posts in Domart and at Bois de Gentelles, already established by the 3rd Division, and at the same time establish a divisional collecting post for slightly wounded in the village of Gentelles.

The medical units of the 4th Division arrived in the area on the early morning of the 7th, and as their division was not taking part in the initial attack, the A.D.M.S. was not particularly concerned in the immediate front of assault. As the 4th Division was to pass through the 3rd Division upon the latter reaching its objective, the subsequent line of evacuation for wounded would be along the Amiens-Roye road, and medical posts would have to be established according to the progress of the attack. It was therefore only necessary for him to get a general idea of the medical arrangements for the right flank of the attack, and to ensure that the bearer divisions of field ambulances were closely in touch with the brigades they were to serve.

On the 6th of August the D.D.M.S. Canadian Corps held a conference, at which the D.D.M.S. Cavalry Corps, the A.D.M.S. 3rd Cavalry Division, the A.Ds.M.S. and D.A.Ds.M.S. of each of the four Canadian divisions were present. All matters pertaining to the medical arrangements of the Corps for the coming fight were thoroughly discussed. In conformity with the general scheme, each A.D.M.S. of the divisions in the line for the initial attack had now to make his detailed arrangements [2] for the disposal of his personnel and for the evacuation of the wounded from his front.

[2] For detailed medical arrangements of a Division, see Appendix I.

The general idea was that each division should be responsible for collecting and evacuating all wounded from its own area, and to deliver them to the corps main dressing station, from which point the D.D.M.S. of the Corps was responsible for the evacuation to casualty clearing stations. For this battle it was not intended to have divisional main dressing stations.

DETAILED ARRANGEMENTS.

The medical arrangements existing at zero hour on the 8th of August were as follows:—

Regimental Aid Posts.—Owing to the fact that the three Canadian divisions had taken over from one Australian division, there were not sufficient R.A.Ps., nor were they now necessary, as in most cases the medical officers of the attacking battalions made their headquarters in the front line trenches.

Advanced Dressing Stations.—

3rd Canadian Division on the Right.—A.D.S. and Car Post at Domart. U.26.d.6.6. No.8 F.A. A.D.S. Bois de Gentelles. T.17.central. No.8 F.A.

1st Canadian Division in Centre.—A.D.S. as for 3rd Division, No. 2 F.A. with divisional collecting post in the village of Gentelles. U.7.c.2.2. No. 3 F.A.

2nd Canadian Division on the Left.—A.D.S. at Cachy. U.8.b.9.9. No. 6 F.A.

Main Dressing Station.—White Chateau, M.36.c. Both stretcher and walking cases. The M.D.S. was in charge of the O.C. No. 1 F.A. and, in addition to the tent division of his own unit, he had the following personnel to assist:—

No. 2 Field Ambulance—2 officers and 2 tent subdivisions.

No. 3 Field Ambulance—2 officers and 2 tent subdivisions.

No. 5 Field Ambulance—2 officers and 1 tent subdivision.

No. 10 Field Ambulance—3 officers and 1 tent subdivision.

No. 14 Field Ambulance[3]—2 officers and 1 tent subdivision.

4th Canadian Division, 4 clerks; Cavalry Corps, 2 clerks from each of the 3rd, 5th and 7th Cavalry Divisions. Resuscitation team of 2 officers, R.A.M.C. (arrived during the 8th).

Corps Medical Centre.—Corps Medical Centre, Asylum, to be used as an overflow in the event of M.D.S. becoming congested. Each division established its own rest station at this point as well as supplying personnel to take part in the working of the station as follows:—

1st Canadian Division responsible for slightly wounded of all divisions.

2nd Canadian Division in charge of all gassed cases.

3rd Canadian Division in charge of all infectious and self-inflicted wound cases. At this point reserve dressings and Red Cross supplies were stored.

Stretchers.—400 extra stretchers and 800 blankets were allotted to each division and were to be drawn from the M.D.S. under arrangements of each A.D.M.S.

Motor Ambulance Convoy.—No. 44 M.A.C. was to serve the Corps and have headquarters at the Asylum.

Locations—

D.D.M.S. Canadian Corps—Dury.
A.D.M.S. 3rd Cavalry Division—Cachy.
A.D.M.S. 1st Canadian Division—St. Fuscien.
A.D.M.S. 2nd Canadian Division—Cagny.
A.D.M.S. 3rd Canadian Division—St. Nicholas (Quarries).
A.D.M.S. 4th Canadian Division—Cavillon.

Venereal Cases.—To. No. 12 C.C.S., Longpré.

Infectious Diseases.—

1. Cases of dysentry, suspected dysentry and severe diarrhoea to be transferred at once to No. 12 C.C.S. Dysentry Centre, Longpré.

2. All cases of infectious diseases, with the exception of the above, to be evacuated to the receiving C.C.S. (N.Y.D.N. N.Y.D.Gas, S.I.W. to No. 12 C.C.S., Longpré).

[3] No. 14 Canadian Field Ambulance, which arrived in France in the latter part of June, 1918, as a corps medical unit, was in charge of the Canadian Corps rest station at Fresnicourt, in the First Army area, and sent five motor cars and some personnel to assist during the fighting in front of Amiens.

Advance Depot Medical Stores.—No. 12 A.D.M. Stores—Crouy.

Dental Clinic.—Canadian Corps Medical Centre, Asylum.

Ophthalmic Centre.—Canadian Corps Med. Centre, Asylum.

Mobile Laboratory—

No. 12 Hygiene—Vignacourt.

No. 5 Bacteriological—Crouy.

Casualty Clearing Stations—

No. 47 C.C.S.—Crouy.

No. 5 C.C.S.—Crouy.

No. 20 C.C.S.—Vignacourt.

No. 61 C.C.S.—Vignacourt.

THE BATTLE FRONT.

The battle front of the Canadian Corps extended from a point about 800 yards south of Hourges to the Amiens-Chaulnes Railway. It crossed the river Luce about 800 yards northeast of Hourges and remaining well west of Hangard passed through the western portion of Hangard Wood. The total length exceeded 8,500 yards in a straight line.

The right boundary was along the road Hourges-Villers aux Erables for a distance of about 2,600 yards, then east of Bertin Wood (inclusive), thence along the Amiens-Roye road, inclusive to the Canadian Corps in liaison with the First French Army.

The left boundary was along the Amiens-Chaulnes Railway inclusive to the Canadian Corps in liaison with the Australian Corps.

The front of each division for the morning of the attack was as follows:—

The 3rd Division extended from the right corps boundary at C.9.b.7.7. to U.22.d.5.0.

The 1st Division in the centre extended from U.22.d.5.0. to U.5.c.2.4.

The 2nd Division extended from U.5.c.2.4. to the left corps boundary on the railway at V.1.a.8.9.

For inter-divisional boundaries during the advance, see Map 2.

3rd Canadian Division.

On the right, the 3rd Canadian Division made the initial attack with one battalion of the 8th Infantry Brigade on the north of the river Luce. A second battalion was in close support and was to pass through when the first had taken Hangard. The 9th Brigade attacked with three battalions between the Luce and the southern boundary of the Corps, while the fourth battalion of the brigade was in close support. The 7th Infantry Brigade was to follow up and pass through when the first objective was reached.

Undoubtedly the 3rd Canadian Division had the nut to crack in this fight, as the high wooded ground to the right front (Dodo Wood) was a very strong defensive position and the winding course of the Luce river, with its low marshy banks, two to three hundred yards wide, restricted the area available for assembly purposes. Across this stream, on the divisional front, there was a solitary bridge on the main road upon which everything depended for the advance of the great column of wheeled vehicles of the 3rd and 4th Canadian Divisions, 3rd Cavalry Division and Brutinel's Independent Force, as well as tanks, artillery, first line transport wagons and ambulances. These troops were to push forward immediately the attack had been well launched and Dodo Wood secured. The bridge over the stream was the cause of much anxiety to the general staff, and particularly to the G.O.C. 3rd Canadian Division. At several conferences between the G.O.C., the G.S.O. 1 and the A.D.M.S. of the division regarding the evacuation problem, the point under discussion was the possibility of returning motor ambulances blocking the road, particularly at the causeway and the bridge across the Luce. It was thought by G. branch that a collecting post should be established east of the river, where all stretcher cases could be held for several hours until the

stream of tanks, artillery and machine guns had passed forward. When it was understood that ambulance wagons clearing wounded from the front would not work in convoys, but singly, and that the chances of interfering with forward-going traffic were comparatively slight, it was decided that men who were badly hit should be pushed through to the M.D.S., and others retained in the old factory building in Hourges. To provide for establishing this collecting post, a place was allotted in the column to a medical detachment, which consisted of—

One general service wagon, loaded with stretchers and blankets.
One horsed ambulance wagon, with surgical supplies.
One limber with soyer stoves, rations, and medical comforts.
One water cart full of chlorinated water.

These were scheduled to cross the Luce between 6.50 and 7 a.m., but as a matter of fact they passed the bridge at 6.30 a.m., and on arriving at the site selected, left the column, unloaded in the factory grounds and immediately established a dressing station.

No. 8 Field Ambulance, as has already been reported, took over the medical posts on the right and the O.C. of this unit was made responsible for the collection and evacuation of all wounded on the divisional front. This officer made his headquarters in the A.D.S. in Domart, while the A.D.M.S. of the division established his advanced headquarters in the dressing station at Bois de Gentelles. Both these stations were well supplied with surgical dressings and reserve stretchers; reserve bearers were stationed at the Bois de Gentelles dressing station. The regimental medical officers of the battalions of the left brigade established themselves in the front trenches, while the field ambulance bearers were stationed in the old regimental aid post at U.27.a.1.5. On the right the regimental medical

officers of the attacking brigade and the field ambulance officers and men occupied the cellars of the ruined factory at C.3.d.9.9. in Hourges, which later in the morning became the collecting post.

For this fight the O.C. No. 8 Field Ambulance had attached to his unit the bearer officers and 25 squads (4 men to a squad) from each of Nos. 9 and 10 Field Ambulances, and these, with his own 30 squads,[4] brought his bearer strength up to 320 men. At zero hour there were 48 bearer squads in the forward positions, the remainder being held in reserve at Bois de Gentelles A.D.S. These reserve bearers went forward early in the morning of the 8th, to be available for work in any part of the field where heavy casualties had occurred, and also as reinforcements when the 7th Brigade took up the attack. Field ambulance bearer squads were posted to, and accompanied, each battalion as it went over. Each regimental medical officer was given extra supplies to the carrying capacity of his staff and sixteen additional stretchers for his battalion bearer party. For this battle no request was made for extra stretcher bearers from battalions, as in view of anticipated conditions, it was thought that the situation could be effectively handled with field ambulance bearers assisted by wheeled transport pushing well forward to shorten the carry.

The O.C. No. 10 Field Ambulance was placed in charge of all motor ambulances of the division, together with a certain number of lorries from the Divisional Supply Column for slightly wounded. He was responsible for directing these vehicles to dressing stations and collecting posts where any congestion of wounded was reported. This division of responsibility allowed the O.C. No. 8 Field Ambulance to devote all his energies to supervising the work of clearing the immediate battlefield.

[4] The unit responsible for clearing the front was always relieved of other duties and so could employ some of the tent division personnel as bearers.

After a short intense bombardment the infantry advanced at 4.20 a.m. on the whole corps front. The left brigade of the 3rd Division advanced rapidly from the start, and the battalion medical officers and regimental stretcher bearers followed up closely. The field ambulance bearers kept in touch, and collected wounded to the collecting post established at Ossian Quarry at U.27.d.5.4. from which point horsed ambulances carried them to Domart. No attempt was made to establish regimental aid posts, wounded being collected into nests where they were inspected by the medical officer or senior battalion dressers and turned over to the field ambulance bearers for evacuation. As the advance continued, about 6.30 a.m. a second collecting post was established in Hangard at U.29.b.1.2. For a time horsed ambulances could not get into this collecting post, but the great number of prisoners kept the wounded fairly well cleared. However, it was not long before the road was passable for horsed vehicles, and the German barrage shortened so that horsed ambulances could go into Hangard; from then on evacuation proceeded expeditiously. Between 7.30 and 8 a.m. the battalions of the left brigade had pushed across the Luce river, and shortly afterwards reached the brigade objective, which was a line just east of Courcelles. Between 8 and 8.30 a collecting post was established in Demuin, across the river, at D.1.a.2.8. Motor ambulances were now going into Hangard and were clearing through to the M.D.S. at the Chateau. When the Demuin collecting post was established the line of evacuation from the left brigade was changed, so that wounded were sent by the Demuin road leading to the main Amiens-Roye road at C.11.d. central.

On the right brigade front the attack was temporarily held up by the enemy in Dodo Wood, but as soon as this was cleared the advance on this flank was just as rapid as

on the left, and no attempt was made to establish R.A.Ps. by battalion medical officers. A considerable number of wounded were found on the slope leading up to Dodo Wood and on the ground where the centre battalion of the right brigade was caught by machine-gun fire as it deployed to the left of the main road. The field ambulance bearers, who at zero were located in Hourges, were in close touch and these casualties were soon cared for and brought to the collecting post. As the troops advanced all wounded were carried to the main road and thence to the collecting post in Hourges, or to the advanced dressing station in Domart. At about 8.30 a.m. a second collecting post was established at the cross-roads at C.11.d.central, to which point wounded were carried from the right of the main road, as well as from the left, and later from the 8th Brigade, whose collecting post had been established in Demuin. Up to this time, on the right, very few ambulance cars had been able to get forward, but again the great number of prisoners relieved the situation. The German prisoner-of-war is possibly the best stretcher bearer in the world. By his dogged perseverance he will keep going without a whimper for many miles; each four men carrying the heaviest casualty until relieved of the burden by an ambulance wagon, or until a dressing station is reached.

Upon the 9th Brigade reaching its objective, just east of Hamon and Vignette Woods, the 7th Brigade went through and continued the advance to the final 3rd Division objective, a line from the Roye road through D.15.central —D.10.a.central—D.4.d.central, which was reached at 10.45 a.m. The field ambulance bearers continued to keep in close touch with the regimental bearers and carried wounded on the left to Demuin and on the right to the collecting post at the cross-roads, and later to a collecting

post established in Vignette Wood, C.18.b.central. The work of collecting wounded and getting them back to the main road continued without interruption until about 1.30 p.m., when the battlefield over which the 3rd Division had fought was reported cleared, with the exception of a few isolated cases, which were being systematically searched for by organized bearer parties.

During the afternoon of the 8th, and the night of the 8/9th, the medical officers of the battalions of the 7th Brigade, which had gone through to the final objective, were located as follows:—

R.C.R. at D.14.c.5.1.
42nd Battalion at D.9.c.1.2.
49th Battalion at D.3.b.5.1.
P.P.C.L.I. at D.7.a.8.6. (in support).

The field ambulance bearers remained in close touch with these battalions and during the night 8/9th bivouacked on the field; those on the left in a valley at the southern edge of Cerfs Wood at D.3.a.8.4., while those on the right lay on the edge of Valley Wood, D.13.c.8.7., and in Vignette Wood, C.18.b.8.3.

The collecting post in Hourges became a busy spot very early on account of its close proximity to the original line. The more serious cases were carried to Domart by field ambulance bearers, but there were many stretcher cases almost from the start awaiting evacuation. The officer in charge at this point displayed initiative and showed that he was alive to the situation by stopping a convoy of prisoners in charge of several mounted police; giving his receipt for 300 Germans he soon had all his wounded on the way to Domart. Some of these prisoner stretcher bearers, upon arrival at Domart, where the congestion of wounded was even worse than at Hourges, continued the carry to the Bois de Gentelles advanced dressing station, three miles further back.

As early as 5.30 a.m. the advanced dressing station in Domart received its first stretcher cases, and in a very short time this dressing station was a very busy place. All wounded from the left brigade of the 3rd Division were brought in here, as well as those from the 1st Division, and therefore during the first three or four hours there was great congestion at this point. This station was really a collecting post, there being no accommodation except one very small cellar and the remains of a few buildings. The great bulk of wounded were laid along the side of the road while waiting for ambulance cars. During the early hours of the attack Domart was the farthest forward that motor cars were able to go, on account of the vast amount of transport on the road. As has been seen, all wounded from the 3rd and 1st Divisions gravitated to this point, where they arrived much faster than it was possible to evacuate them with the limited number of motor cars available. The Domart advanced dressing station was originally established by the 3rd Division, but field ambulance personnel of the 1st Division also worked here and finally took over when No. 8 Field Ambulance moved forward to establish the advanced dressing station in Hourges. This took place after the 3rd Division wounded were all cleared from the Hangard area to the west and north of the river Luce at about 9 a.m.

The advanced dressing station at Bois de Gentelles soon became too far back and was not used after the first hour from zero, thenceforward all wounded arriving in motor ambulances were not unloaded, but sent through to the main dressing station at the White Chateau. However, the Bois de Gentelles station continued to be the supply depot for the 1st and 3rd Divisions, from which all returning ambulance cars received a fresh supply of stretchers and dressings for the forward posts. An ambu-

lance wagon ordinarily carried four stretchers, and when a load of wounded was delivered to a dressing station there was an exchange, but during the early hours of the Amiens battle so many wounded were carried out by German prisoners that the forward area was in danger of running short of stretchers. This difficulty was soon overcome when motor cars began to get through, and each one, upon the return journey, brought back an extra supply.

4th Canadian Division.

On the 7th of August the field ambulances of the 4th Division were de-brigaded and came directly under the A.D.M.S., and on this day a conference of the O.Cs. of units was held and final arrangements made for the attack. The Officer Commanding No. 12 Field Ambulance was placed in charge of clearing and evacuating the wounded on the divisional front, and had at its disposal the bearer divisions of the three field ambulances. As has already been stated, Nos. 11, 12 and 13 Field Ambulances were located in the Asylum on the 7th, and instructions were issued for the bearer divisions to report to their respective brigades by 3 a.m. on the morning of the 8th, at the Bois de Gentelles rendezvous. The bearers were to work as follows:—

No. 11 Field Ambulance with the 11th Brigade.
No. 12 Field Ambulance with the 12th Brigade.
No. 13 Field Ambulance with the 10th Brigade.

As the 4th Division was to push on through the 3rd Division upon the latter reaching its objective, the field ambulance bearers, under their own officers, accompanied the infantry on the march forward, and were in close touch when the troops deployed. The advance was made by the 11th Brigade on the right, and by the 12th Brigade on the left. At 7.20 a.m. on the morning of the 8th, the 11th Brigade began crossing the foot bridges over the Luce river south of the main road, while the 12th Brigade crossed

the river at Hangard and pushed forward on that flank. During the afternoon the advance was continued without undue resistance on the part of the enemy, and the field ambulance bearers kept in close touch with the regimental medical service, collecting wounded to the main Amiens-Roye road on the right and to the cross-country road leading through Beaucourt on the left. The first collecting post was established at the cross-roads at Maison Blanche, D.20.b.5.7. As this point was rather close to the enemy, and under shell-fire, wounded were not retained here but were removed farther back to a temporary A.D.S. in the wood at D.13.d.4.4. This site was in a ravine which offered good protection from shell-fire, and was used until the line was considerably advanced. On the left of the 4th Division front a certain number of wounded were evacuated through the 1st Division A.D.S. in Cayeux. This was the natural route on that flank, as the 4th Division was using two brigades and was on a widening front, while the 1st Division was still on a one brigade and narrow front.

During the afternoon of the 8th, clearing the battle-field and collecting wounded to the A.D.S. was continued without serious difficulty. Considerable shell-fire was encountered, particularly on the right, where the defence was stiffening in the neighbourhood of le Quesnel. The congestion of traffic on the main road naturally interfered with motor ambulance cars getting through, and this caused some delay in evacuation. By the evening of the 8th the M.D.S. was very far back, about $11\frac{1}{4}$ miles, owing to the rapid advance. However, by the morning of the 9th all wounded were cleared. On the right the front line on the night of the 8th remained west of the village of le Quesnel, and the enemy seemed to be showing a more determined front in this quarter. The heavy shelling and night-bombing, to which the main road was subjected,

caused a considerable number of casualties to the field ambulance bearers and medical personnel. During the advance of the 4th Division there were not so many German prisoners available for stretcher bearer work, and consequently the demand for motor ambulance cars was very pressing. Owing to the congestion of traffic on the main road these cars did not get through in sufficient numbers to keep the advanced posts clear, and consequently the clearing of wounded and evacuation went on throughout the night of the 8 9th. On the 9th the 4th Division had cleared le Quesnel by noon and thus the final objective for the division was reached, and a jumping off line secured for the 1st and 3rd Divisions, which were to continue the advance.

During the remainder of the 9th the bearers of the field ambulances continued to clear the battlefield of the morning, and in the course of the afternoon a considerable number of wounded were evacuated. The bearers were working with brigades and were therefore in close touch when the division was ordered to push forward to the left front and relieve the 1st and 2nd Divisions during the early morning of the 10th.

1st Canadian Division.

The 1st Canadian Division attacked in the centre with the 3rd Infantry Brigade, the 1st being in close support ready to pass through when the former reached its objective. The Officer Commanding No. 2 Field Ambulance was placed in charge of the front for the advance of these two brigades. For this work he had at his disposal, besides the bearer division of his own unit, 1 officer and 50 bearers of No. 1 Field Ambulance. Upon the 1st Brigade reaching its objective the 2nd Brigade was to pass through and continue the advance, and be served by the bearers of

No. 3 Field Ambulance and 1 officer and 50 bearers of No. 1 Field Ambulance, all under the O.C. of No. 3 Field Ambulance.[5]

As has been stated, the 1st Division was to use the advanced dressing stations in Domart and at Bois de Gentelles, as well as the divisional collecting post for slightly wounded in the village of Gentelles, which was in a more direct line to the rear of the divisional front. The advanced dressing station at Bois de Gentelles, T.17.d. central, was the rendezvous for field ambulance stretcher bearers and the horse and motor transport of the division, as well as being the supply depot for blankets, stretchers, extra dressings, etc. As considerable movement was expected during these operations, one medical officer and three runners were attached to each brigade headquarters to transmit information as to the progress of the infantry, location and number of casualties, and to assist generally in the evacuation of wounded.

The advance of the 1st Division was rapid; wounded were carried back to the Bois de Gentelles advanced dressing station by horsed ambulances, and the walking wounded made their way to the collecting post in the village of Gentelles. The cross-country clay-roads in the rear of this front were very good owing to the dry weather, and no difficulty was experienced in using horsed transport. Later in the morning wounded were evacuated by the Valley road to Domart; many prisoners being used for this work, and also the horsed ambulances. The field ambulance bearers followed up closely the advancing infantry and kept in touch with the regimental bearers. Each battalion had two squads of field ambulance bearers attached, which formed a connecting link between the regimental

[5] For field ambulance medical arrangements and operation order see Appendix I.

medical service and the field ambulance personnel. The first collecting post, after the initial attack, was established at Aubercourt, V.20.c.3.1, about 8.30 a.m. It was not long until horsed ambulance wagons were getting through to this point and these, with prisoners, were keeping the post clear. The walking wounded were also now going by way of Domart, following the general stream of traffic, instead of taking cross-country routes to the village of Gentelles. About 10 a.m. the collecting post was moved forward to V.21.c.5.0. and shortly afterwards a travelling cooker[6] and general service wagons, with stretchers, blankets, etc., were brought to this point and it became more or less of an advanced dressing station.

About 11.30 a.m. the 1st Infantry Brigade had reached its objective, and the 2nd Brigade pushed through and continued the advance with No. 3 Field Ambulance clearing the wounded. No. 3 Field Ambulance transport section earlier in the morning, about 7 a.m., after leaving Domart in rear of its brigade, got into the German barrage and had an exciting time until able to retire a short distance. One driver was killed and four wounded; also several horses were killed, the water-cart upset, and altogether the transport of this unit was rather disorganized before getting properly started. However, upon the barrage lifting, the remaining ambulances proceeded and were soon in touch with the bearers. No. 3 Field Ambulance established its first collecting post in Ignaucourt about 11.40 a.m. Many prisoners were used as stretcher bearers in carrying back

[6] Although not part of the equipment, many, if not all, field ambulances at this time had field cookers. These were obtained in various ways; in the early days of the war by parts, which were put together by handy men of units; later on it is thought that complete cookers were secured. How this was accomplished can only be guessed; but then during and after a heavy engagement much loose equipment and transport was obtainable.

Since the war a recommendation has been made that field ambulances be provided with cookers. It is hoped this will bear fruit.

to No. 2 Field Ambulance dressing station about 1,500 yards to the rear, from which point horsed ambulance wagons and an occasional motor car were working. One of the sanitary details of No. 3 Field Ambulance, while working in Ignaucourt, discovered ten of the enemy hiding in a cellar, and had the pleasure of taking all prisoners. A medical officer, attached to a captured artillery regiment was also taken in this village, and was immediately set to work attending to his own people. About 2 p.m. the collecting post was advanced and located in Cayeux. By this time many German wounded were being cared for; quite as many as Canadians. Motor ambulance cars were now coming through to Ignaucourt, and were greatly assisting in clearing the advanced area, thus saving the horsed transport the long haul to Domart. Fortunately, the Germans were not fighting hard and the wounded were not arriving in such great numbers. On this particular front the many country roads were used by the bearer parties and the horsed ambulance wagons, and the clearing of the immediate battlefield was quickly accomplished, wounded being collected into Cayeux and Ignaucourt. About 4.30 p.m. field ambulance personnel went into Caix and established a collecting post at this point, the division having consolidated its final objective for the day. The collecting post at Cayeux now became an advanced dressing station, where wounded were unloaded, re-dressed, fed and made comfortable, while awaiting evacuation. While the battlefield on this front was quickly cleared of wounded, a certain congestion occurred at Cayeux. This was unavoidable, due to the long haul to and from the main dressing station at the White Chateau, which by this time was about fifteen miles to the rear, and an ambulance car took from five to seven hours for the return trip. Not only was the great distance to the main dressing station responsible

for this congestion of wounded, but also the great amount of traffic both on the Valley road (Ignaucourt, Aubercourt, Hangard) and on the main Amiens-Roye road.

2nd Canadian Division.

The 2nd Canadian Division made the attack on the left of the corps front with the 4th Infantry Brigade closely followed by the 5th Infantry Brigade, which was to pass through on the former brigade reaching its objective. The Officer Commanding No. 6 Field Ambulance was placed in charge of clearing the divisional front, and had the bearer divisions of all three field ambulances and a bearer party of two hundred men from each infantry brigade. These battalion bearers were in charge of their own officers, but worked under the direction of the field ambulance officers.

The bearers of No. 6 Field Ambulance and the bearer party of the 4th Infantry Brigade had rendezvoused in the support trenches at zero hour, and went forward shortly after the infantry advanced. During the very early hours of the morning of the 8th considerable difficulty was experienced on this front owing to the ground mist interfering with the search for wounded. At first both stretcher and walking cases were evacuated by the Villers-Bretonneux road. It will be remembered that this road was exclusive to the Canadian Corps, but as it was the natural route to the rear for this flank, it was used by the motor ambulances of the 2nd Division to evacuate the first rush of wounded. In this connection it might be stated that in the late war, during heavy fighting, ambulance cars were rarely if ever interfered with while evacuating wounded, even on roads which had been assigned to another corps. Later in the morning of the 8th the route of evacuation was changed, and stretcher cases were taken by way of Domart, via the cross-country roads, and walking

wounded were also directed south to the main Amiens-Roye road at Domart.

After the initial attack on this front the first collecting post was established on the Cachy-Villers-Bretonneux road at O.34.c.6.2. Wounded were brought to this point and from there evacuated to the main dressing station, via the Villers-Bretonneux road. As the advance progressed, a collecting post was established on the Villers-Bretonneux-Marcelcave road at V.2.c.1.1. From this post wounded were transported either by stretcher bearers or horsed ambulance to the advanced dressing station at Cachy, and thence by motor ambulance to the main dressing station.

About 8.30 a.m. the 4th Infantry Brigade had reached its objective just east of Marcelcave, and the 5th Infantry Brigade, which had left its assembly area about 6 a.m. and followed up closely, continued the advance. The bearers of No. 5 Field Ambulance and the bearer party of the 5th Brigade were in close touch, and cleared wounded to the collecting post which had been established in Marcelcave at about 9 a.m. These stretcher bearers, following closely the advancing troops, collected wounded from the villages of Wiencourt and Guillaucourt to the post in Marcelcave. Motor ambulances were now coming forward to this collecting post, although not getting through in sufficient numbers to keep the wounded cleared. The same congestion of traffic was experienced on the cross-country roads on this front as was encountered by the divisions on the right flank on the main Amiens-Roye road. There were, therefore, many wounded in the collecting post in Marcelcave who were not evacuated until late in the evening of the 8th.

The 5th Infantry Brigade continued the advance to just east of Guillaucourt, when the 6th Brigade went through and took up the line gained by the cavalry running

from N.E. of Caix to the Amiens-Chaulnes railroad. The bearers of No. 4 Field Ambulance and the 6th Brigade bearer party collected the wounded during this advance, and experienced little difficulty in keeping the field clear. In the evening an advanced dressing station was established in Guillaucourt by a tent section of No. 4 Field Ambulance. At this point there was more or less congestion of wounded, not due so much to the great number of casualties occurring as to the difficulty in evacuating to the rear. It was not long until ambulance cars got through to this post and, by a more or less continuous service during the night, all wounded were cleared by the morning of the 9th.

During the night 8/9th the bearers of No. 4 Field Ambulance and the bearer party of the 6th Brigade remained in Guillaucourt, stretcher squads being detailed to remain with the battalions in the forward positions. The bearers of No. 5 Field Ambulance and the 5th Brigade bearer party rested in Wiencourt, while No. 6 Field Ambulance bearers and the 4th Brigade bearer party were still in Marcelcave. During the night a few wounded came in, but not in sufficient numbers to necessitate many men being kept on duty. A few dressers and a certain number of men detailed for loading parties were employed at each of these stations. The remainder of the men rested to be ready for the continued advance during the 9th.

During the 2nd Division fight on the 8th No. 6 Field Ambulance suffered the loss, under peculiar and unfortunate circumstances, of a particularly good medical officer, Capt. M. A. McKechnie. While riding in a motor ambulance on the Villers-Bretonneux-Marcelcave road, the car was blown up by the explosion of a mine. Several stretcher bearers were wounded, the car destroyed and the medical officer severely wounded in both legs, from the effects of which he died the same evening at the casualty clearing station.

CHAPTER IV.

CONTINUED OPERATIONS TOWARDS ROYE.

Reference Map 2.

By noon of the 9th our advanced troops were on a line extending from the Amiens-Roye road about 1,000 yards east of le Quesnel to the Amiens-Chaulnes railroad at W.23.d.9.9. Orders were issued for the advance to be continued by the 3rd, 1st and 2nd Divisions. The 3rd Division on the right attacked on a one-brigade front, while the 1st Division in the centre side-slipped to the right and attacked on a two-brigade front; the 2nd Division on the left extended its front to the right and also employed two brigades. Reference to Map 2 will show the respective fronts for the attack on the 9th.

3rd Division Front.

During the afternoon of the 8th, after the 3rd Division battlefield was cleared of all wounded, the headquarters and transport sections of field ambulances made a general move forward to be in closer touch with the bearer divisions. The headquarters of No. 8 Field Ambulance moved from the White Chateau to Bois de Gentelles, where the night was spent, and on the morning of the 9th pushed forward and bivouacked in the southeastern part of Hamon Wood, C.18.b.8.5. No. 9 Field Ambulance moved to the Bois de Gentelles A.D.S. site on the 9th and opened a main dressing station. The headquarters and transport of No. 10 Field Ambulance, late in the afternoon of the 8th,

moved from Boutillerie to Hourges and bivouacked at the site of the advanced dressing station and collecting post of the morning. Early on the 9th No. 10 Field Ambulance was warned to go forward with the 8th Brigade, which was to make the attack on the right. In order to be well forward, the headquarters of this unit moved to Maison Blanche and bivouacked in Wheelbarrow Wood at C.20.a.8.8.

Information that the 3rd Division was to attack on the 9th reached the medical service quite late. This was due to the fact that there was still some doubt as to the exact hour that the advance would be continued, owing to le Quesnel not having been taken on schedule time, but still remaining in the hands of the Germans on the morning of the 9th. However, the bearers of No. 10 Field Ambulance were well forward, and the remaining personnel necessary to take charge of the forward clearing were sent up in motor ambulances and were in close touch with the infantry when the attack began. The bearer divisions of Nos. 8 and 9 Field Ambulances were also soon well forward and remained in support during the early part of the fighting.

The attack of the 8th Brigade started shortly after 1.30 p.m. and from the first made good progress. The bearers of No. 10 Field Ambulance, following behind the infantry, established an advanced dressing station at the Old Quarry, D.28.b.6.1, about 2 p.m. Later a collecting post was located on the south side of the main road at J.6.c.9.9., from which point bearer parties worked forward along the road and to the left through le Quesnel. Horsed ambulances were also going forward from this point and motor ambulance cars were clearing back to the main dressing station, although the congestion of traffic on the main road greatly interfered with rapid evacuation. However, there was not a great number of casualties, and

wounded were quite easily collected to the advanced dressing station. About this time the neighbourhood of the advanced dressing station was badly shelled with high explosive, and a considerable number of casualties occurred among the motor machine gunners resting nearby. The dressing station was therefore moved to another quarry a few hundred yards nearer the front. During the afternoon wounded came in regularly, but not in excessive numbers, and about 4 p.m., as progress continued, the advanced dressing station was moved forward to Petit Hangest and established in an old estaminet at the corner, K.7.b.2.1. Motor cars came through to this new station, while bearers and horsed ambulances worked forward. Later in the evening the headquarters and transport of No. 10 Field Ambulance moved to Petit Hangest and bivouacked in the wood at K.7.b. Clearing the forward area and evacuating went on throughout the night of the 9/10th and no difficulty was experienced in keeping the forward posts cleared. During this night a collecting post was established in an old sugar factory, K.22.a.9.2, which had just been vacated by the medical officer attached to the 5th C.M.R. battalion. About the same time the officer in charge of the bearers on the left established a collecting post in a gun-pit, K.9.d.9.2. Three horsed ambulances were used to clear from each of these posts, and, with the field ambulance bearers, kept both collecting posts cleared.

On the morning of the 9th the A.D.M.S. moved his advanced headquarters from near Boves to Valley Wood, D.13.d.1.1. and his rear headquarters to Beaucourt. On the forenoon of the 9th a divisional report centre was established in a field at D.22.d.8.2, where the A.D.M.S. received reports from the medical personnel working in the forward area.

The 8th Brigade made good progress during the night and by the morning of the 10th had taken le Quesnoy; later in the morning the collecting post on the main road was pushed forward, and established in an old German dressing station on the eastern outskirts of Bouchoir at K.29.b.9.4. On the left the collecting post was moved into Folies. The post in Bouchoir, later in the day, became an advanced dressing station and was used by the 32nd (British) Division when they took over from the 3rd Canadian Division on the forenoon of the 10th.

On the morning of the 10th the divisional report centre had been moved to a dugout east of le Quesnel at K.8.d.5.5., where the A.D.M.S. again established his advanced office. Upon the 32nd Division taking over the front, the advanced divisional headquarters moved back to Beaucourt. During this time night bombing by the Germans was very annoying. Divisional headquarters was given much attention and several casualties occurred on the night of the 10/11th in and around Beaucourt. Although the effect was chiefly moral, one company of the Divisional Train of the 32nd (British) Division, bivouacked in a field just outside this village, was particularly unlucky; about 75 per cent of the personnel and horses being either killed or wounded.

During the fighting of the 3rd Division from 1.30 p.m. on the 9th to the afternoon of the 10th there was nothing of particular interest, except that casualties were not heavy; while the road to the main dressing station was always more or less congested with traffic, there was no difficulty in keeping the forward area clear. The open fields on both sides of the main road were used by all horsed vehicles, thus leaving the road itself for the use of motor transport. As a result the time taken by an ambulance car for the return trip to the main dressing station at Bois de Gentelles

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was reasonably short, and wounded were evacuated fairly rapidly.

On the evening of the 10th at 8 p.m. the headquarters and transport of No. 8 Field Ambulance moved from Hamon Wood to Petit Hangest, and bivouacked in a field opposite No. 10 Field Ambulance in the orchard. No. 9 Field Ambulance headquarters and tent division with transport, upon closing the main dressing station at Bois de Gentelles, moved off at 2 p.m. on the 11th and that night arrived at Beaucourt, and established headquarters in the ruined chateau at D.22.d.8.7.

32nd (British) Division.

The 32nd (British) Division, which was in the army reserve area on the 8th of August, was attached to the Canadian Corps and moved forward along the main road with the intention of attacking through the 3rd Canadian Division. All day on the 9th the battalions of this division were to be seen marching over the hot, dusty roads, and by the morning of the 10th finally caught up with the 8th Canadian Infantry Brigade, and were immediately put into the line to continue the advance. On the afternoon of the 9th the A.D.M.S. 32nd Division had called upon the A.D.M.S. 3rd Canadian Division, and received all information as to the forward medical posts. The advanced dressing station at Bouchoir was taken over by the 92nd Field Ambulance, but two officers and seventeen other ranks of No. 10 Field Ambulance, 3rd Canadian Division, remained at this point to assist in caring for any Canadian wounded still to come in. This Canadian personnel worked in the Bouchoir dressing station during the night of the 10th/11th and the day of the 11th, and materially assisted in looking after not only Canadian wounded, but also French and those of the 32nd Division. Upon the relief

of the 3rd Division all bearers, excepting the Bouchoir party, returned to ambulance headquarters in the orchard at Petit Hangest.

The attack by the 32nd Division did not advance the line any great distance. The men of this division were tired after their long march, were new to the front, and had not had the experience of following up a retreating enemy. Moreover, the Germans were now making a more determined stand in their old trench system in front of Roye. The fighting was relatively more costly than had been experienced during the previous two days, and for the thirty-six hours that this division was in the line it suffered some 2,000 casualties, without having much to show for it. The wounded were mostly evacuated through the advanced dressing station in Bouchoir to the main dressing station at Maison Blanche, which had been opened by the 4th Canadian Field Ambulance on the afternoon of the 10th.

3rd Canadian Division.

During the day of the 11th orders were received for the 3rd Canadian Division to take over from the 32nd (British) Division, and during the night 11/12th the 7th and 9th Canadian Infantry Brigades went into the line on the left and right respectively, and No. 10 Field Ambulance was again placed in charge of clearing the front. The advanced dressing station at Bouchoir was taken over, and the forward area reconnoitered for suitable locations for collecting posts. These were finally located for the right at L.25.d.8.8. on the western outskirts of the village of le Quesnoy, and for the left in an old gun-pit at L.13.c.central. The fighting in this area was now becoming more or less stationary; during the next few days regimental aid posts were established by battalion medical officers, and the fighting settled into a semi-trench war-

fare. The medical officers of battalions of the two brigades in the line were located as follows on the morning of the 12th:—

7th Brigade—
42nd Battalion, at L.9.b.5.0.
49th Battalion, at L.14.b.8.8.
P.P.C.L.I., at L.14.c.4.6.
R.C.R., at L.14.c.4.6.

9th Brigade—
52nd Battalion, at L.33.b.5.5.
116th Battalion, at L.33.b.5.5.
43rd Battalion, at L.26.a.6.4.
58th Battalion, at L.25.d.9.9.

Up to the time the 3rd Canadian Division took over from the 32nd Division during the night of the 11/12 for the division's last tour in the line on this front, the total casualties, including killed and wounded, were 1,476, while some 2,970 prisoners had been taken. For the next four or five days the fighting was more strenuous and of a dogged nature. Small advances were made from trench to trench by bombing exploits, etc., and during this period many casualties occurred and were collected and evacuated under most unfavourable conditions. Our troops were attacking and driving the enemy out of his elaborate and fairly well organized trench system, and most of the wounded had to be collected during the hours of darkness.

1st Division Front.

After the advance of the 1st Division on the 8th the bearers of No. 3 Field Ambulance, and those attached from No. 1 Field Ambulance, spent the night of the 8/9th in Cayeux. The bearers of No. 2 Field Ambulance and the remainder of No. 1 Field Ambulance bearers rested overnight at the medical post at V.21.c.5.0. Both field ambulance bearer groups were in close touch with their respective brigades for the advance that was to take place

on the morning of the 9th by the 1st Infantry Brigade on the right, and by a composite brigade made up of battalions of the 2nd and 3rd Brigades on the left.

In the early morning of the 9th the bearers of No. 2 Field Ambulance assembled with the 1st Brigade group at approximately D.5.c.central, while bearer squads were detailed to battalions as usual. The main body of bearers moved down the road towards Beaucourt and remained in the valley north of the village at D.17.c.4.5. A change of zero hour had been made owing to the fact that le Quesnel had not been taken by the 4th Division until the morning of the 9th instead of the night before, according to schedule, and therefore the field ambulance bearers did not move forward until 1 p.m. Upon the troops going forward field ambulance bearers followed closely and established a collecting post in some old French huts at E.25.b.6.2. Shortly after the attack this post was advanced to the outskirts of the village of le Quesnel, to which point all wounded were brought until the advanced dressing station, later in the afternoon, was established in le Quesnel itself.

The bearers of No. 3 Field Ambulance group at 6 a.m. on the 9th were in readiness in Cayeux, where all motor and horsed ambulance wagons had been collected in anticipation of an advance; a sufficient supply of extra stretchers had also been collected during the night at Cayeux. As the 2nd Infantry Brigade had side-stepped to the right, the dressing stations in Cayeux and Caix were now more immediately behind the 2nd Division front, and so about 9.30 a.m. one officer, two horsed ambulance wagons and five stretcher squads were sent down the Caix-le Quesnel road to establish a collecting post in the vicinity of the wood at E.15. The officer in charge of this party actually opened a dressing station on the southern edge of the wood at E.21.a.8.6., where the personnel were very much exposed

to both shell and machine-gun fire. At 10 a.m. the O.C. of No. 3 Field Ambulance in Cayeux received information that the 2nd Infantry Brigade was to attack at 11 a.m., and at 11.45 a.m. the main body of his field ambulance bearers, with two motor and two horsed ambulance wagons and considerable stores, moved down the Caix-le Quesnel road with the intention of opening an advanced dressing station in le Quesnel. A small party was left in Caix to care for any casualties coming to that point. As the main body of field ambulance bearers, under the O.C., No. 3 Field Ambulance, approached the wood at E.15. they came under heavy machine-gun fire. This was unexpected, our troops had had more than an hour's start, and the road should have long been out of range of the enemy's machine guns. Then an infantry officer came out of the wood along the sunken road, with the information that the attack had been postponed from 11 a.m. to 1 p.m. This was the first intimation of the change of hour that the field ambulance had received, and the bearers were immediately ordered to take cover as best they could in the woods and sunken roads in the neighbourhood, and the ambulance wagons were sent back also to take cover in the sunken road farther to the north. Several casualties had already occurred in the field ambulance personnel, but the unit was fortunate that more serious trouble had not been encountered while moving such a caravan down a road within 1,000 yards of the enemy. This experience would appear to have been the result of poor liaison work between brigade headquarters and the O.C. of the field ambulance clearing the brigade front. During this time many wounded came in from the troops taking shelter in the woods and sunken roads, for cavalry, infantry, artillery and tanks, besides medical personnel, were all huddled together taking advantage of the scanty cover, and some confusion occurred

when the German artillery opened up with a heavy bombardment. The wounded were cared for and retained in the immediate area until the enemy was pushed back so that the roads could be used with some degree of safety. The 5th and 8th Infantry Battalions had established regimental aid posts in old dugouts in the side of a sunken road, and here wounded were dressed as a temporary measure.

Between 1 p.m. and 1.30 p.m., the infantry finally went forward and the field ambulance personnel, not actually following up the advance, pushed down the road to le Quesnel, where an advanced dressing station was set up about 2.30 p.m. This station in le Quesnel received practically all wounded from the divisional front. During the morning, when such uncertainty existed, a few casualties were taken back to Caix and these were now brought down to the advanced dressing station in le Quesnel by horsed ambulance wagons. In le Quesnel two German hospitals were inspected as possible dressing stations. One of these was in the church on the village square, but as the enemy was directing artillery fire on this part of the town No. 3 Field Ambulance established the advanced dressing station in two fairly large houses on a side street.

About 4 p.m. the advance having made good progress, a collecting post was established in Beaufort by the bearers of No. 2 Field Ambulance, who had followed up closely the infantry on the right flank. About 4.30 p.m. this collecting post was moved to Warvillers and set up in the chateau, where good accommodation existed, and where wounded were retained until the forward area was well cleared. The field ambulance bearers were then employed to carry back to Beaufort, to which point motor cars came forward in the evening. During the fighting on the 1st Division

front on the 9th casualties were comparatively heavy, but by midnight all wounded were cleared from the battlefield and most of them had reached the main dressing station, although the advanced dressing station in le Quesnel had still a number of cases for evacuation on the morning of the 10th. During the day of the 10th a few wounded came in, consisting of local casualties from shelling in the town and a certain number of the 4th Canadian Division, which had gone through and continued the advance. The infantry of the 1st Division were now out of the line, and disposed around le Quesnel and east of the town. The advanced dressing station in Warvillers was taken over by personnel of No. 3 Field Ambulance, and continued as a dressing station for local sick and for occasional casualties from the shelling in the neighbourhood.

By this time the headquarters of field ambulances of the division were very far to the rear, and on the 10th a general move forward took place. No. 1 Field Ambulance, upon closing the main dressing station at the White Chateau, moved to Beaucourt, where the bearer division rejoined. The headquarters and transport of No. 3 Field Ambulance on the 10th moved to Beaucourt, and later in the day to le Quesnel, and joined up with the bearer division already located there. The headquarters and transport section of No. 2 Field Ambulance in the afternoon of the 9th moved from the Asylum to Bois de Gentelles, where they remained until the 11th, and then moved forward to le Quesnel and joined the remainder of the personnel. For the next few days, while the 1st Division was not fighting, each field ambulance was responsible for the collection of all sick from its brigade. This condition of affairs lasted until the division again went into the line to relieve the 3rd Canadian Division on the 16th.

2nd Division Front.

The advance on the 9th was continued by the 2nd Division on the left corps front; the 6th Infantry Brigade attacking on the left and the 5th Infantry Brigade on the right of the divisional front. The latter brigade came up from the rear and inclined to the right, taking over from the 1st Division troops, who side-slipped to the right as has already been indicated.

No. 4 Field Ambulance bearers and the 6th Brigade bearer party, who had spent the night of the 8/9th in Guillaucourt, moved up early in order to be well forward when the troops attacked. No. 5 Field Ambulance bearers and the 5th Brigade bearer party followed their brigade to the new front on the right, and also were in touch with the infantry at 11 a.m., when the general advance began. The two attacking brigades on this divisional front met with strong resistance from the first, due to both flanks being exposed. Neither the 1st Canadian Division to the right, nor the Australians to the left, made their attack until about 1 p.m., and the 2nd Canadian Division experienced very heavy fighting and had many casualties during the first few hours. However, as soon as the flanking troops advanced, the pressure was relieved and good progress was made. Shortly after the infantry moved off for the attack, the tent section of No. 4 Field Ambulance, which had been working in Guillaucourt, moved up and established an advanced dressing station in Caix. This station was the point to which all wounded from the two brigades were evacuated; it was receiving at about 2.30 p.m. As the advance progressed, towards evening collecting posts were located by No. 4 Field Ambulance bearers in Rosières at F.8.a.3.5., and by No. 5 Field Ambulance bearers in Vrély at F.13.d.3.4.—both locations being at old German hospital sites. From these posts all wounded gravitated to the

advanced dressing station in Caix and thence by motor ambulance to the main dressing station. Horsed ambulances worked forward of Caix to near the collecting posts on each flank, but owing to the shelling of the town squares in Rosières and Vrély, bearer parties carried wounded to loading posts on the western outskirts of these villages. During the fighting on this front on the afternoon of the 9th there was nothing of importance to relate regarding evacuation of wounded, excepting that casualties were heavy. The objective for the day was reached after nightfall, and wounded were collected and evacuated without much difficulty. On the forenoon of the 10th the 4th Division relieved the 2nd Division and continued the advance.

During the fighting of the 8th and 9th the headquarters and transport sections of the field ambulances of the 2nd Division made several moves, as follows:—

On the 7th the headquarters of No. 4 Field Ambulance moved from St. Acheul to the Asylum, and on the 9th moved to Bois de Gentelles and there assisted in the main dressing station. On the afternoon of the 10th the headquarters, with all equipment, moved to Maison Blanche and opened a new main dressing station, which received its first wounded at 6.30 p.m.

The headquarters of No. 5 Field Ambulance remained at the Ecole Normale in Amiens in charge of the divisional rest station during the whole of the Amiens fighting. Sufficient personnel was retained to carry on the work at this station, while the remainder, which included dressers and bearers, was in the forward area.

On the afternoon of the 9th the headquarters section of No. 6 Field Ambulance moved from Longeau to Marcelcave, and on the evening of the 10th went forward to Caix.

4th Division Front.

Late in the evening of the 9th the 4th Division moved across country behind the 1st and 2nd Divisions on the left corps front, and the 10th and 12th Brigades took over the line before noon on the 10th. Respective field ambulance bearers accompanied the infantry and immediately made preparation for the evacuation of wounded. At 5 a.m., on the 10th, No. 12 Field Ambulance established an advanced dressing station in the most easterly part of Caix at E.4.c.6.1, and the collecting posts already in use by the 2nd and 1st Divisions in Rosières, Vrély and Warvillers were taken over.

The attack was due to start at 11 a.m. Progress at first was slow, the enemy was putting up a strong resistance; however, by determined efforts on the part of the infantry, the objectives were secured fairly well on schedule time. On the left the collecting post was moved forward to the sugar factory on the Rosières-Meharicourt road at F.9.b.2.0. Most of the wounded from the left brigade passed through this post; motor cars coming forward this far, while horsed ambulances cleared from a loading post in Meharicourt. On the right the wounded mostly went to Warvillers, via cross-country roads; horsed ambulances going as far forward as Rouvroy, where a loading post was established in a derelict tank on the outskirts of the town. During this fighting wounded were quickly collected and no delay in evacuation was experienced, although enemy shell fire was quite severe and caused a considerable number of casualties among the bearers. On the afternoon of the 10th the main dressing station was opened by No. 4 Field Ambulance at Maison Blanche, just 5½ miles from the collecting posts, and thus the run for motor ambulances was greatly lessened. As will be seen from the map, the line of the 4th Division on the night of the 10th was some-

what in advance of that of the 32nd (British) Division on the right, and no further attempt was made to push forward. During the 11th fewer casualties occurred and a certain number of all bearers were withdrawn from the immediate forward area and bivouacked in the fields west of Vrély.

The headquarters and transport sections of all field ambulances of the 4th Division, on the night of the 9th, moved from the Asylum to Bois de Gentelles, and on the 10th moved forward to Beaucourt, where fairly good accommodation was obtained. During the next five or six days the fighting on this front became somewhat desultory; all medical units were resting, but were responsible for the sick of the respective brigades.

3rd Division Front.

After the 3rd Division took over from the 32nd (British) Division on the night of the 11/12th, there was a period of three or four days in which the 7th and 9th Brigades experienced very severe fighting. The Germans were resisting all our attempts to break through their old trench system and casualties were very heavy. The line was not advanced any great distance, although Parvillers and Damery were taken, and by the 15th of August the line ran about 500 yards east of these two villages, and the whole trench system to the north and east had been cleared. During these days of trench warfare, wounded were evacuated through the collecting posts in le Quesnoy and L.13.c. central to the advanced dressing station in Bouchoir, and thence to the main dressing station at Maison Blanche.

At this time there was some uncertainty as to future operations. The fighting was difficult and little ground was gained. On the 13th the 3rd Division was given

instructions to attack on the 15th. In anticipation of this, extra bearers were sent forward from the ambulance headquarters in the orchard, near le Quesnel, and No. 9 Field Ambulance took over the front from No. 10 Field Ambulance. The headquarters and transport of No. 9 Field Ambulance, which had been at Beaucourt, moved to the field ambulance rendezvous at le Quesnel and the necessary personnel went forward. However, on the 14th, all operations were called off and on the nights 15/16th, 16/17th, the 3rd Division was relieved by the 1st Division, and all medical personnel withdrawn to le Quesnel to be in readiness for the move to the reserve area and future operations on another front.

Withdrawal from the Line.

On the 4th Division front from the 12th to the night of the 23/24th, when French troops of the 34th and 35th Divisions took over the line, fighting was not severe and the few casualties were easily cared for. On the 13th, No. 11 Field Ambulance, of the 4th Division, established a corps main dressing station on the Caix-le Quesnel road at E.21.-L.C.6.6. where eight captured German hospital marquees were used. This dressing station served the left half of the corps front, while the main dressing station at Maison Blanche, in charge of No. 4 Field Ambulance, 2nd Division, continued to serve the right corps front, *i.e.*, the 3rd Division and later the 1st Division.

On the night of the 11/12th the 4th Infantry Brigade, 2nd Division, took over the line in the neighbourhood of Fouquescourt and No. 13 Field Ambulance, in charge of the advanced dressing station in Warvillers, was relieved by No. 6 Field Ambulance, which served the 4th Brigade until the bearers of the 4th Field Ambulance came up and took over on the night 12/13th. In anticipation of

the general attack, planned for the 15th, the advanced dressing station on this front was moved up to Rouvroy, with the intention that the one at Warvillers should also be used.

This attack for the 15th, as stated above, did not take place; on the night 14/15th the remainder of the 4th Division front was taken over by the 5th Brigade, No. 5 Field Ambulance clearing through an advanced dressing station in Meharicourt. On the night 16/17th the 4th Division again took over the front, and Nos. 11 and 13 Field Ambulances relieved Nos. 4 and 5 Field Ambulances of the 2nd Division, which units went into corps reserve with their brigades.

On the right corps front the 1st Division had relieved the 3rd Division on the nights 15/16th, 16/17th, and Nos. 2 and 3 Field Ambulances took over the forward posts from No. 9 Field Ambulance, which moved into the reserve area and bivouacked in the wood at le Quesnel. No. 3 Field Ambulance took over the advanced dressing station at Bouchoir, K.30.c.2.9 and the collecting post near le Quesnoy at L.25.d.9.9. while No. 2 Field Ambulance cleared the brigade on the left, but did not establish any forward posts, clearing all wounded through No. 3 Field Ambulance.

By this time it was generally understood that the Canadian Corps was leaving the Amiens front, and preparations were made for the medical units of the 2nd and 3rd Divisions, already out of the line, to accompany their respective brigades. On the 19th the field ambulances of the 3rd Division received a warning order for the move next day. On the evening of the 20th, Nos. 8 and 9 Field Ambulances were moved by bus to the new area, while No. 10 Field Ambulance entrained at Boves. The field ambulances of the 2nd Division entrained at Boves at 4 a.m. on the 21st and thus moved to the north.

While the 2nd and 3rd Divisions were en route, the 1st and 4th were still in the line, but preparing to be relieved by French troops. As early as the 19th all surplus stretchers, blankets, and supplies were turned into No. 4 Canadian C.C.S. at Boves, and by dawn on the 22nd the 1st Division, on the right, was relieved by the 126th French Division, and on the 24th the 4th Canadian Division was relieved by the 34th and 35th French Divisions. The field ambulances of these two Canadian divisions moved into the reserve area, and were brigaded for the move to the north. On the 25th No. 1 Field Ambulance entrained at Prouzel, No. 2 at Bacouel and No. 3 at Saleux. Two days later, on the 27th, the field ambulances of the 4th Division were entrained as follows: Nos. 11 and 12 at Longueau, No. 13 at Boves.

No. 7 Canadian Cavalry Field Ambulance.

During the battle of Amiens an interesting feature of the work of the medical service was the co-operation of No. 7 Canadian Cavalry Field Ambulance. It was the only occasion upon which this unit came into close touch during active operations with the other Canadian field ambulances, and, although not under the D.D.M.S. of the Corps, its motor and light-horsed ambulances rendered considerable service in the general evacuation of wounded on the Canadian front.

The cavalry field ambulance was in two sections and had an establishment of six officers and 112 other ranks; the transport consisted of 4 motor ambulances, 6 light horsed ambulances, 1 light motor lorry, 2 motor cycles, 4 general service wagons, 2 limbers, 2 water carts and 52 horses. On the 6th of August the unit left Hangest-sur-Somme for Amiens, and at 8.30 p.m. the following night moved to the White Chateau where the personnel assisted at the Canadian Corps main dressing station. During the night 7/8th a mounted medical patrol of one officer and four men was sent forward to the brigade. This patrol

was the connecting link between the regimental medical service and the field ambulance, and was the means by which the O.C. of the latter was to be kept informed as to the situation with the fighting troops. It was most important that the officer in charge of this patrol should be alive to his duties, as the cavalry field ambulance bearers were not mounted and therefore could not be expected to keep in close touch with the regiments. Messages were sent to headquarters of the unit by means of mounted orderly or motor cyclist. Although the cavalry was extensively employed during this battle, it was not heavily engaged, and casualties, after receiving first aid from the regimental dressers, were mostly cleared through the medical posts of the field ambulances serving the infantry.

At 2 p.m. on the 8th the Canadian Cavalry Field Ambulance moved from the White Chateau to Domart, where it arrived at 5 p.m. and assisted in the dressing station there. The motor ambulances and light lorry, while officially reserved for duty with the cavalry, were used in the evacuation from this point; some 708 wounded were treated and passed through. At 4.30 a.m. on the 10th headquarters moved to Ignaucourt where instructions were received to proceed to a point on the Cayeux-Caix road. A temporary dressing station was set up here, but later orders sent the unit to Vrély where an advanced dressing station was established. Again the plan of operations was changed and the unit was ordered to Warvillers where it was held in reserve. Meanwhile the Canadian Cavalry Brigade[1] had gone into action further to the right along the main Roye road.

[1] Composed of:—
Headquarters.
Royal Canadian Dns.
Lord Strathcona's Horse.
Fort Garry Horse.
Royal Canadian H.A. Bde.
Canadian Cav. M.G. Sqn.
Canadian Signal Troop.
Canadian Cav. F. Ambs.
"A" Cdn. Mobile Vet. Section.

By the 11th it became known that cavalry would not be further used in this battle and at 6 p.m. the Canadian Cavalry Field Ambulance left Warvillers, and proceeding by way of le Quesnel, reached Boves during the night 11/12th. The unit remained at Boves until the 15th, when orders were received for the move to the rear area. By 4 a.m. on the 16th the field ambulance was again back in Hangest after a sojourn of ten days in the fighting zone, where much time had been spent manœuvring and preparing to serve its brigade in a cavalry action that ultimately took place on another part of the front. Although this Canadian unit during the battle of Amiens had very little opportunity to demonstrate its worth; the spirit shown by the officers and men and the manner in which the unit was moved into position, and made ready for any eventuality, gave evidence of efficiency worthy of the fullest confidence.

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CHAPTER V.

WORK IN REAR CORPS AREA AND SUMMARY OF THE BATTLE OF AMIENS.

Reference Maps 1 and 2.

Having now followed the work of the divisional medical services in collecting wounded from the battlefield and evacuating them to the main dressing station, a brief description will be given of the work in the corps area, which came more immediately under the D.D.M.S.

The casualty clearing stations detailed by the army to serve the Canadian Corps during the battle of Amiens were located at Crouy and at Vignacourt, both locations being about eighteen miles from the main dressing station. Crouy is on the south side of the river Somme on the main road from Amiens, while Vignacourt is slightly west and north of Amiens on the main line of railway. To reach these casualty clearing stations it was necessary to cross the city of Amiens, where the traffic control was not good, and so the time for the return trip of motor ambulance convoy cars was considerably lengthened.

The main dressing station at the White Chateau, M.36.c., was taken over by No. 1 Field Ambulance about 6.30 p.m. on the evening of the 7th of August and for the next twelve hours it was necessary for all ranks to work very hard preparing this place as a dressing station. In the chateau itself two dressing rooms were arranged each with four operating tables; in other rooms there was accommodation for only thirty stretcher cases, so most of

the wounded lay outside on the lawn. As this main dressing station was to care for stretcher cases and walking wounded, provision for the reception, dressing and recording of the latter cases was made in the field adjoining the out-buildings, some of which were also used. Field ambulance operating tents were pitched, and the whole compound arranged so that the incoming patients were kept apart from the outgoing; the latter being directed to the kitchen, where each man was fed and then loaded into a lorry or ambulance car, as his condition required. Into both the stretcher case and the walking case department there was a continuous stream of wounded during the 8th of August; the first cases arriving about 6 a.m.

As has been noted, the personnel at the disposal of the O.C., No. 1 Field Ambulance, for the working of this dressing station, besides the tent division of his own unit, was as follows:—

Two tent subdivisions from each of Nos. 2 and 3 Field Ambulances. -

One tent subdivision from each of Nos. 5, 10 and 14 Field Ambulances.

In addition to the above, four clerks from each Canadian division and two from each of the 3rd, 5th and 7th Cavalry Divisions had been detailed to the record section. A resuscitation team was attached from the R.A.M.C. to give transfusions and to perform urgent amputations. During the 8th and 9th the entire personnel worked at top speed, but in spite of all efforts a great congestion of wounded occurred. The main cause of this was the long distance to the casualty clearing stations and the insufficient number of motor ambulance convoy cars. No. 44 M.A.C. was allotted for duty with the Corps for this battle, but did not report until the afternoon of the 7th. The M.A.C. was new to this section of the front and the drivers were not familiar with the roads leading

from the M.D.S., through Amiens, to the casualty clearing stations. The consequence was that an ambulance car took from five to six hours to make the return trip and in many cases, particularly at first, the time taken was much longer, due to the drivers temporarily losing their way. On the afternoon of the 8th thirty cars of No. 37 M.A.C. and ten of No. 42 M.A.C. reported for duty, and again on the 9th of August nine of No. 24 M.A.C. arrived at the Asylum for the purpose of clearing German wounded to the casualty clearing station.

During the afternoon of the 8th, when the main dressing station was hopelessly clogged with wounded, some 500 stretcher cases awaiting evacuation, many were transferred to the Asylum, where there was good accommodation in buildings and sufficient field ambulance personnel to inspect dressings, re-dress where necessary, and supply food, etc. This shorter run for the M.A.C. cars greatly expedited the clearing of the main dressing station, although it was only to cause congestion at the Asylum. During the night of the 8/9th there were still many stretcher cases at the White Chateau.

That night No. 48 Casualty Clearing Station moved into the Asylum and made ready to receive patients. This unit took over the many cases already there, in charge of No. 9 Field Ambulance, the transfer taking place in the early morning of the 9th. No. 9 Field Ambulance then moved forward, and took over the old advanced dressing station at Bois de Gentelles and opened a main dressing station at this point. The unit arrived at the new site at 1 p.m. and was ready to receive at 4 p.m., having pitched sufficient tents for dressing rooms and a certain number for housing the wounded awaiting evacuation. This station was soon crowded with casualties and, as happened at the Chateau, many remained in the open.

There was really no hardship in this as the weather was warm and, particularly during the daytime, the patients much preferred to enjoy the warm sun in the open than to be under canvas. The dressing station being in an open field, no buildings were available. As soon as the Bois de Gentelles dressing station was receiving, wounded were unloaded here, but the original station at the Chateau continued in operation until all patients were cleared at about 8 p.m. on the 9th. During the morning of the 10th a few wounded came into the Chateau, but upon instructions from the D.D.M.S. of the Corps the station was closed at 4 p.m. and all personnel attached from other units returned; No. 1 Field Ambulance moving forward to Beaucourt, came under the A.D.M.S. 1st Division.

The main dressing station at Bois de Gentelles, in charge of No. 9 Field Ambulance, continued in operation and received all wounded from the Corps front until the morning of the 11th, when instructions were issued to close the station as soon as cleared. This was done by noon, and on the afternoon of the 11th, No. 9 Field Ambulance moved to Beaucourt and joined the 3rd Division. No. 4 Field Ambulance of the 2nd Division had in the meantime moved forward and opened a main dressing station at Maison Blanche, and received its first cases at 8 p.m. on the 10th. This station remained open until the 2nd Division moved out of the area on the 21st, receiving from the right corps front.

On the 13th the fourth corps main dressing station was opened on the Caix-le Quesnel road by No. 11 Field Ambulance. This station was opened primarily to serve the troops on the left, but was really never very busy, as the fighting by this time had quieted down considerably.

On the 10th No. 47 Casualty Clearing Station moved into the Asylum and assisted No. 48 in caring for the many

wounded already there. During the 10th No. 49 also came into the area and prepared to open by pitching canvas in a field near the village of Boves. On the 11th No. 4 Canadian Casualty Clearing Station moved into the neighbourhood of Boves and on the 12th No. 1 Canadian also located in this area. There were now five casualty clearing stations within a reasonable distance of the front, and this, of course, simplified and expedited evacuation. These two Canadian casualty clearing stations continued in operation at Boves until after the Canadian Corps withdrew from the line, when they followed and moved north locating at Agnez-les-Duisans on the Arras front. It will thus be seen that Nos. 1 and 4 Canadian Casualty Clearing Stations, on account of their camouflage move to the SECOND ARMY area in the north, did not have an opportunity to enter into the work of evacuation of Canadians during the heaviest part of the fighting at the battle of Amiens, but arrived on the scene just prior to our troops being relieved.

During the fighting on this front from the 8th to the 20th of August, the total number of wounded evacuated to casualty clearing stations was as follows:—

CANADIANS.		32ND DIVISION CAVALRY, AUSTRALIANS AND FRENCH.		GERMANS.	
Officers.	O.R.	Officers.	Other Ranks.	Officers.	O.R.
350	7,413	96	1,022	50	1,097

The casualties amongst medical personnel of the Canadian Corps were comparatively light, and were as follows:—

	Officers.	Other Ranks.
Killed	–	7
Died of wounds[1]	2	–
Wounded	3	25

[1] Captain T. Whitmore, No. 5 Canadian Field Ambulance.
Capt. M. A. McKechnie, No. 6 Canadian Field Ambulance.

The operation of the British Army, and particularly the part taken by the Canadian Corps in front of Amiens on the 8th of August and succeeding days, was considered of the utmost importance, and the great success attained brought forth numerous letters of congratulation. The Corps Commander was personally congratulated by the Commander-in-Chief, Sir Douglas Haig, and also by the Commander of the FOURTH ARMY, Sir Henry Rawlinson.

The following Special Order gives one some idea of the far reaching results of this glorious offensive, and the Corps Commander's own appreciation of his incomparable troops.

SPECIAL ORDER

By Lieutenant-General Sir ARTHUR W. CURRIE, K.C.B., K.C.M.G.,

Commanding Canadian Corps.

The first stage of this battle of Amiens is over, and one of the most successful operations conducted by the Allied Armies since the war began is now a matter of history.

The Canadian Corps has every right to feel more than proud of the part it played. To move the Corps from the ARRAS front and in less than a week launch it in battle so many miles distant was in itself a splendid performance. Yet the splendour of that performance pales into insignificance when compared with what has been accomplished since zero hour on the 8th of August.

On that date the Canadian Corps—to which was attached the 3rd Cavalry Division, the 4th Tank Brigade, the 5th Squadron R.A.F.—attacked on a front of 7,500 yards. After a penetration of 22,000 yards, the line tonight

rests on a 10,000 yards frontage. Sixteen German divisions have been identified, of which four have been completely routed. Nearly 150 guns have been captured, while over 1,000 machine guns have fallen into our hands. Ten thousand prisoners have passed through our cages and casualty clearing stations, the number greatly in excess of our total casualties. Twenty-five towns and villages have been rescued from the clutch of the invaders, the Paris-Amiens railway has been freed from interference, and the danger of dividing the French and British Armies has been dissipated.

Canada has always placed the most implicit confidence in her army. How nobly has that confidence been justified; and with what pride has the story of your gallant success been read in the home land. This magnificent victory has been won because your training was good, your discipline was good, your leadership was good. Given these three, success must always come.

From the depths of a very full heart I wish to thank all staffs and services—the Infantry, the Artillery, the Cavalry, the Engineers, the Machine Gunners, the Independent Force, consisting of the Motor Machine Gun Brigades and the Cyclists, the Tank Battalions, the R.A.F., the Medical Services, the Army Service Corps, the Ordnance Corps, the Veterinary Services, the Chaplain Services—for their splendid support and co-operation, and to congratulate you all for the wonderful success achieved. Let us remember our gallant dead, whose spirits shall ever be with us, inspiring us to nobler effort, and when the call again comes, be it soon or otherwise, I know the same measure of success will be yours.

(Sgd.) A. W. CURRIE, Lieutenant-General,
Commanding, Canadian Corps

Summary of the Battle of Amiens.

An examination of the special features of this battle from a medical standpoint, reviewing the difficulties to be overcome, comparing the different methods employed by divisions for the actual clearing of the battlefield, and considering how existing arrangements might have been improved, is well worth study.

The A.D.M.S. of each division, during an engagement, was solely responsible to his G.O.C. for the successful clearing of the battlefield, and he was at liberty to use his own discretion as to the method employed. If at any time he encountered extraordinary difficulties, he immediately made application to his G.O.C. for assistance, and at the same time reported his action to the D.D.M.S. of the Corps, who, if he considered it necessary, took steps through Corps Headquarters to lend assistance.

Clearing the Front Line.

In the battle of Amiens, which may be considered in the light of a planned battle, although the time was very limited for definite arrangements to be made, each A.D.M.S. worked out his own system for evacuation. In the 3rd Division, where the attack was made by two brigades on a comparatively wide front, the O.C. of one field ambulance was placed in complete charge of clearing the battlefield, while the O.C. of a second field ambulance was made responsible for the evacuation from advanced dressing stations to the main dressing station, and was in charge of all medical transport of the division. In this case the bearers of the three field ambulances were at the disposal of the officer responsible for clearing the front, and his disposition of these was never questioned as long as the result was satisfactory. Relying on his knowledge of the front, and the nature of the fighting to be expected, he detailed field ambulance bearers, not according to forma-

tions, but according to the area to be cleared, and at the same time held a sufficient number in reserve. The arrangements made for the 3rd Division worked well and, as has been seen, the battlefield was cleared a few hours after the final divisional objective was reached. On this particular front, no doubt, the work was much accelerated by the great number of German prisoners, as for several hours after zero it was impossible for sufficient wheeled transport to get forward.

It will be remembered that the 1st Canadian Division attacked on a one brigade front; here responsibility was divided. The O.C. of one field ambulance, with half the bearers of a third field ambulance, was made responsible for clearing the area fought over by the two brigades first employed, which attacked in sequence. The O.C. of a second field ambulance, with the remaining half of the bearers of a third field ambulance, was made responsible for the battlefield of the brigade going through to the final objective. On this front, instead of placing one officer in charge of all transport, it was divided between the two field ambulance groups responsible for clearing.

On the 2nd Division front, where the capture of each of the three successive objectives was allotted to a brigade, the O.C. of one field ambulance was made responsible for clearing the battlefield through to the final objective for the day. He had at his disposal the bearers of all three field ambulances, and, in addition, two hundred regimental stretcher bearers from each brigade. In this way field ambulance bearers with the brigade bearer party were made responsible for the clearing of their respective brigade areas.

In the 4th Division, which did not take part in the initial attack, field ambulance bearers were brigaded and made responsible for, and marched into the fight with,

brigades. The O.C. of one field ambulance was responsible for the whole divisional front, while the O.C. of a second field ambulance was placed in charge of the transportation of wounded in the intermediate area.

From this it will be seen that different methods were employed by divisions, and, on the whole, with equal satisfaction. On the 3rd Division front, which was more or less wide with a limited penetration, it is considered that the plan of undivided responsibility for clearing the battlefield worked out to the best advantage, while on the 1st Division front, which was narrow with a deep penetration, the division of responsibility would seem to have given equally good results. On the 2nd Division front, which was also narrow with a deep penetration, the A.D.M.S. employed a large number of regimental stretcher bearers, and in this way assumed the responsibility of clearing from the immediate front line, instead of from farther back as in other divisions, where wounded were collected into nests by regimental personnel. The employment of regimental stretcher bearers from brigades has much to recommend it, and particularly where long carries through mud are necessary, as at Passchendaele. In this battle, however, where wheeled transport got well forward, it is doubtful whether it was necessary to tie up so many infantrymen on stretcher bearer work.

While the actual clearing of the battlefield on each divisional front was more or less expeditiously carried out, there was a certain congestion of wounded at several of the advanced dressing stations. This was entirely due to the great amount of traffic on the roads leading to the rear. However, on the 8th of August, on the main Amiens-Roye road, where traffic was in three columns, two going forward and one to the rear, it was noted with satisfaction that every consideration was shown to motor ambulance

drivers by men in charge of transport. No matter how great the congestion, it seemed that a way could always be made for an ambulance car loaded with wounded.

Where great numbers of wounded have been gathered in forward posts, it is considered that the medical service might be given authority to stop and load wounded into returning supply and ammunition lorries, unless the drivers are supplied with written orders for a through trip on account of urgency in connection with their own service.

Inter-Communication and Liaison.

In a war of movement inter-communication has always been a matter for serious consideration. During battle, field ambulance personnel come directly under the orders of the A.D.M.S., who is responsible for their disposition. The A.D.M.S. should, therefore, be in close touch with the G. branch of his division, and must at no time allow his service to be forgotten, in case information as to the hour of attack or change in employment of troops, etc., may reach him so late as to render impossible the issuing of appropriate orders to the medical personnel concerned. Very often the A.D.M.S. obtains information verbally, upon which he acts at once, so that his medical personnel receives instructions as soon as the brigade in whose area they are working. The locations of medical detachments in the forward area change so frequently that the signal service cannot be expected to keep in touch with all units, and it is therefore most essential that the A.D.M.S. of a division be supplied with a motor cycle as a means of forwarding his instructions and orders. At the beginning of the late war three motor cycles were allowed for each field ambulance, one to each section, but later one of these was withdrawn. Now that a field ambulance is organized into a headquarters and two companies, and is allowed

three motor cycles, it is hoped that in the event of war the exigencies of the service will not again necessitate a reduction in these cycles. As the A.D.M.S. is not provided with a motor cycle it becomes necessary for him to take one from the field ambulance, not in the line. This is not always convenient and at times it is impossible without impairing the efficiency of the unit concerned.

The difficulties in conveying urgent orders to personnel in the forward area were brought home to the medical service on the morning of the 9th of August, when No. 3 Field Ambulance, upon the march from Caix to le Quesnel, encountered heavy machine-gun fire, due to not having received information as to the change of hour for the attack on that morning. On this occasion it would seem that the A.D.M.S. of the division had not the time nor the means at his disposal for forwarding the urgent notification of the change of hour, and apparently the brigade headquarters, if giving this matter any thought, did not consider it part of their duty to inform the O.C. of the field ambulance of the change of time.

The work of the A.D.M.S. and his relations with other branches at divisional headquarters might here be discussed, as might mention be made of the recent recommendation to change the location of his office. Whether looked upon as a member of the divisional staff, as an administrative head, or as a commanding officer only, the fact remains that during battle it is of the utmost importance that the officer responsible for the evacuation of wounded be in the closest touch with both the G and Q branches of divisional headquarters. If the A.D.M.S., as the officer commanding C.A.M.C. personnel of the division, is detached from divisional headquarters with his office in a nearby village, it is feared that this necessary close touch with other branches will not be maintained and difficulties

arise as a result. A separate medical headquarters would undoubtedly secure for the A.D.M.S. his own motor car. This would be a step in the right direction. Upon occasions during the late war a car for the A.D.M.S. was a subject for serious and perhaps at times heated discussion. With his own transport, it has been argued that the A.D.M.S. could establish an advanced headquarters independent of that of the division. During active operations the accommodation available for advanced headquarters is always limited, and at times A.Ds.M.S. have had difficulty in impressing upon the camp commandant the necessity for a medical representative being forward.

Where this independent medical headquarters is to be, is not clear. If at one of the medical posts in the front area a certain amount of space, always at a premium, would have to be provided and no particular purpose served, for the continuous presence of the A.D.M.S. at a dressing station is not necessary nor is it even desirable. During battle all medical posts are visited frequently by the A.D.M.S., at which times information as to the difficulties in the work, or as to assistance needed, is obtained and action taken accordingly. Once medical arrangements have been completed, the personnel posted, and the battle joined, the work of clearing and evacuating wounded must be left to those immediately in charge. The A.D.M.S. must refrain from interfering in the details of the work, but should, at all times, be conversant with the progress of events. He must be ever ready with advice as to the best methods of dealing with difficult situations and by reason of his wider knowledge of the general conditions prevailing, should be able to foresee and avoid complications.

Information as to the progress of the fight so necessary to the efficient working of the medical service, can be

obtained only at advanced divisional headquarters and there the A.D.M.S. should be. In Canadian divisions either the A.D.M.S. or the D.A.D.M.S. was always on duty at advanced divisional headquarters, and was therefore in close touch with those responsible for operations. For the A.D.M.S. to establish an advanced headquarters entirely on his own, thus in close touch neither with his command nor with his division, would be the least desirable. It is possible, under such conditions, that he even would have difficulty in securing a separate telephone line to his office.

For administration, the A.D.M.S. normally comes under the A.A. and Q.M.G. of the division and in conjunction with him routine matters concerning the health of the troops, sanitation, the potability of the water supply, accommodation for medical units, discipline, reinforcements and personnel generally are carefully worked out. In times of greater activity arrangements are made through the Q branch for extra supplies of all kinds, including stretchers, blankets, food for the wounded passing through dressing stations, and also for extra transport and stretcher bearers when necessary.

During periods of preparing for battle and during the actual fighting the A.D.M.S. has much to do with the G branch, with which he must be in the closest touch. The allotment of dugouts, the alteration and improvement of these to make them suitable for dressing stations; the roads and tracks leading from the front, their suitability for wheeled transport and their availability for the evacuation of wounded; the area of greatest concentration of troops for attack and consequently the most likely area of heaviest casualties; changes in the disposition of fighting troops necessitating the employment of reserves and the general progress of the battle are all matters of importance

to the medical service. While the A.D.M.S. is not concerned with the immediate business of fighting, nor is he required to have more than a slight knowledge of tactics and strategy, nevertheless, he and his medical personnel are most imtimately concerned with the fighting troops. Men, whether wounded in the reserve or support area, in the front line or in the most advanced outpost, immediately become a charge on the medical service, either divisional or regimental. The immediate front must therefore be thoroughly familiar to the A.D.M.S. and his subordinates. This knowledge can only be obtained by personal investigation, requiring many visits to the advanced area and much careful study. The general principles governing the evacuation of wounded are the same for all battles, but the plan for each must be worked out in detail, with particular consideration of the local terrain and of any special conditions which may affect the work.

Members of the general staff of Canadian divisions were always ready to discuss the tactical situation with the A.D.M.S. and to give the necessary advance information. The fighting branch appreciated the fact that the medical representatives were able to discuss conditions in the forward area with an understanding that could only be based on knowledge obtained on the ground. Much valuable information came to light incidentally, as it were, during these frequent and informal visits to the G branch; information that would ordinarily be considered as not affecting the work of the medical service, but which, nevertheless, proved of great assistance in the collection of wounded from the immediate front.

The supply of maps for field ambulances is an important matter; the allotment of one to each unit was never sufficient and was supplemented by various means, but always from the same source, the I branch. It often fell to the lot of

the D.A.D.M.S. to secure these extra copies and much depended on his ability to represent our needs to those in charge of the supply. A field ambulance with headquarters possibly three or four miles behind the advanced dressing station, then in the area of most important work, is badly handicapped if supplied with only one map. A map is undoubtedly necessary at the headquarters of the unit, but it is still more necessary that the junior officers, collecting wounded in the forward area, be supplied with accurate maps. It is, of course, impossible for each officer of a field ambulance to have a map, and on many occasions junior officers have made their own sketches of particular areas over which they have been detailed to work. While at times the supply may have been short of what we considered our requirements, it is safe to say that the field ambulances of Canadian divisions were as well supplied as any in the British Army, if not better. At Amiens the map situation was fair. There had not been time to get our extra copies, even if available at the I branch, by the usual methods. However, during this battle, there was no intricate system of trenches which required close study as on other fronts, and the advance was rapid and over a large stretch of country with obvious landmarks where a small scale map answered the purpose.

MAIN DRESSING STATIONS.

As the battle of Amiens was the first occasion in the experience of the Canadian Corps where a rapid and extensive advance took place, the method of leap-frogging main dressing stations was first worked out there. The original main dressing station at the White Chateau soon became very far to the rear, and on the afternoon of the 9th a second was opened at the site of the original advanced dressing station. Again on the afternoon of the 10th, a third main dressing station was established some miles

farther forward, thus relieving the pressure upon the stations to the rear, and allowing them to clear wounded more quickly, while not obliged to receive. On the 13th the last corps main dressing station was established by still another field ambulance, but by this time conditions had changed, a C.C.S. was at Boves, the haul was shorter, wounded fewer, and no further trouble was experienced as regards congestion at medical stations.

It is considered that this leap-frogging of corps main dressing stations quite answered the purpose, although possibly the A.Ds.M.S. of the divisions may have felt, at times, that divisional main dressing stations would have been more satisfactory. No doubt a divisional main dressing station could have been much more easily moved forward and kept closer to the front line, but it is doubtful if any great advantage would have resulted from this procedure. At no time during the battle of Amiens was there any special difficulty in clearing the battlefield; the great trouble was to get the wounded to the main dressing station and then to the casualty clearing station further back. If divisional main dressing stations had been established, they would naturally have been kept close up, and the already too long haul for the M.A.C. cars would have been hopelessly increased.

During the battle of Amiens three different corps main dressing stations were established under canvas in the open fields, and great difficulty was experienced in carrying on the work of dressing and evacuating wounded during the hours of darkness owing to enemy bombing. It was only where tents were deeply stained that it was possible to continue the work by taking all precautions to prevent the smallest ray of light showing. It would appear that the Germans had concentrated many of their bombing squadrons on this particular front, and all roads and fields

in the neighbourhood were bombed continuously from nightfall until early morning. In future warfare, where buildings are not available in the fighting area, some special precautions will have to be taken to provide sufficiently large light-proof tents to enable the work at main dressing stations to be carried on throughout the night.

Casualty Clearing Stations.

During the previous years of trench warfare, the great ambition of the British Medical Service in France was to bring casualty clearing stations well forward, in order to allow surgical intervention at the earliest possible moment. In fact, on all fronts a casualty clearing station, or a section of one, was pushed forward, often to within range of heavy artillery, and an operating centre for urgent cases opened. This was the state of affairs during the early months of 1918, so that when the Germans broke through on the 21st of March, several British casualty clearing stations were over-run, losing much equipment, and the personnel and patients having barely time to make their escape. This apparently so impressed the medical authorities that they went to the other extreme, and casualty clearing stations were located quite far to the rear during the early summer of 1918.

In July of this year the groups of casualty clearing stations, serving the Amiens front, were located at Crouy and Vignacourt, both places about eleven miles west and north of Amiens, which was another six to seven miles from the corps main dressing station on the Canadian front of the 8th of August. So great was the necessity for secrecy in connection with the move of the Canadian Corps from the Arras to the Amiens front, that the Fourth Army would not allow any change in the locations of the casualty clearing stations. There is no doubt that the precautions taken by G.H.Q. and the armies concerned proved quite

efficient and completely deceived the enemy, but there would appear to be ground for discussion as to whether the same results could not have been obtained, and the wounded much more quickly evacuated during the battle of Amiens, if different medical arrangements had been made.

It is considered that the Asylum, just to the south of Amiens, which afforded such great possibilities as a site for a casualty clearing station, and which was afterwards used as such, might have been prepared at least one or two days previous to the 8th of August, and sufficient personnel and equipment moved in during the hours of darkness undetected by the enemy. Field ambulance personnel of the Canadian Corps was already there and would have provided most of the orderlies, cooks, dressers, etc., while the casualty clearing surgical teams, with nursing sisters, would have completed the necessary personnel to care for and give surgical treatment to the wounded within a reasonably short time. It is true that it has always been considered that a casualty clearing station should be located at, or within a short distance of railhead, in order that evacuation by hospital train can be easily carried out. At the time in question railhead was still west of Amiens, and this was probably another reason for not pushing these stations well forward. However, as was to be brought home to the medical service later in the summer, it was not possible to retain casualty clearing stations so far to the rear merely on account of railways not being in operation. Where good accommodation existed in buildings, even if patients had to lie on stretchers for some time after the necessary operations and dressings had been done, it was found that they did much better under such conditions than when subjected, before operation, to the long and tedious journey to a well established hospital.

On the 8th of August, once the battle was started and secrecy no longer was a factor, a casualty clearing station was sent to the Asylum, where it arrived in the evening, and during the night 8/9th took over a considerable number of wounded already there. In other words, the situation demanded a casualty clearing station at the Asylum from the beginning of the engagement, and it was even established at this point before the personnel arrived. To cope with the work at the main dressing station with any degree of satisfaction during the 8th, wounded had to be sent somewhere closer than Crouy, and the Asylum was used for this purpose. However, twenty-four hours had elapsed from zero and wounded had accumulated to such an extent, both at the main dressing station and at the Asylum, that even when a second main dressing station was established at the Bois de Gentelles site, the M.A.C. cars were busily engaged in clearing the two original stations, while the new main dressing station was filled to overflowing. This was again the condition of affairs on the evening of the 10th, when a third main dressing station was established in the field at Maison Blanche, and at this time the M.A.C. cars were used to clear the dressing station at Bois de Gentelles. However, by this time the run to the casualty clearing station at the Asylum was so considerably shorter that the work of evacuation was finally brought up to a condition approaching normal, and moreover, by the 11th, the number of wounded had decreased.

Motor Ambulance Convoys.

Ordinarily, one motor ambulance convoy was allowed to each corps, which in quiet times was quite sufficient. During heavy fighting, however, the fifty motor ambulances, presuming that all are working, could not begin to cope with the evacuation problem of a corps of four strong

Canadian divisions. Even if casualty clearing stations had been close up, at least not farther from the main dressing station than the main dressing station was from the front line, it would have been impossible to keep the front clear. Each field ambulance had seven motor ambulance cars; making twenty-one to a division or eighty-four to the Corps. To this must be added those cars of the cavalry division attached, so that possibly ninety motor ambulances were clearing from the front to the main dressing station, and it is quite apparent that at least two motor ambulance convoys would have been kept busy evacuating wounded to the casualty clearing stations. Moreover, these M.A.C. cars should have been available from the first, so that the great accumulation of wounded would have been avoided. The ordinary establishment of a casualty clearing station does not provide for a sufficient loading and unloading party, and therefore extra personnel should always be detailed for this purpose by the army or corps concerned. It is understood that during the battle of Amiens, particularly during the first twenty-four to thirty-six hours, M.A.C. cars were unnecessarily delayed on this account.

The Canadian Medical Service in France, during the late war, did not provide its own motor ambulance convoys. The work of transporting wounded from the main dressing station to casualty clearing station, and of moving wounded by road from casualty clearing stations to hospital trains and from general hospitals to hospital ships at the base, was carried out by R.A.M.C. units or convoys provided by the British Red Cross Society. As the Canadian Corps, in itself, was such a complete fighting unit, it was felt by the medical authorities of the Corps that a Canadian convoy would have been most acceptable. This matter was often discussed unofficially and if fighting had continued into the

year 1919 undoubtedly the Corps would have had its own M.A.C. The second battle of Amiens again brought this matter to the fore.

In the forward area motor ambulance convoys were army troops and under the orders of the D.M.S. of the army, who allotted one M.A.C. to each army corps. In addition, there was an army M.A.C. which remained in the back area under the immediate orders of the D.M.S., and which was used on purely army work. A motor ambulance convoy, upon being detailed to a corps, came under the corps for administration and under the orders of the D.D.M.S. in all matters concerning the evacuation of sick and wounded. As the personnel of these convoys were British (R.A.M.C. and A.S.C.), all questions pertaining to promotions, transfers, reinforcements, etc., were referred to the D.M.S. of the army.

A Canadian convoy, for work with the Canadian Corps, would have been welcomed by those charged with the evacuation of wounded. Each army had its proper allotment of M.A.Cs. which normally remained in the army area, consequently when a corps left the area it was not accompanied by its M.A.C. A Canadian M.A.C. would have been expected to move with the Corps and thus perhaps a certain dislocation of the regular routine would have occurred. This, however, might have been arranged as was done in the case of particular units of other arms and services. No. 8 Motor Ambulance Convoy, which had been serving the Canadian Corps on the Arras front, was just as keen to accompany us to Amiens as we were to have it with us, but apparently this matter was not sufficiently pressed. It would have been well to have had this convoy with us at this battle, and the transfer could undoubtedly have been effected without giving information to the enemy. A self-contained formation, such as the Canadian

Corps, which was only moved from what might be considered its permanent location in the line for a set purpose, and that invariably a pre-arranged attack, should have joined battle provided with sufficient means for clearing the heavy initial casualties that such fighting inevitably produced.

CHAPTER VI.

MOVE, AMIENS TO ARRAS, MEDICAL ARRANGEMENTS AND NARRATIVE OF THE BATTLE, AUGUST 26 TO SEPTEMBER 1.

Reference Maps 1 and 3.

On the 19th of August the Canadian Corps received a warning order for the relief by French troops which, at this time, were beginning to arrive in the area. The 2nd and 3rd Divisions were already out of the line and were the first to leave for the north, and by the 22nd all arrangements had been made for the relief of the 1st and 4th Divisions. The Corps Headquarters, therefore, on the 22nd, moved to Hautecloque in the THIRD ARMY area, and on the 23rd to Noyelle-Vion, where headquarters were established for the battle of Arras, which commenced on the 26th.

The return move of the Canadians to the FIRST ARMY was carried out with a certain amount of care to prevent the enemy getting information, but there did not appear to be the same necessity for the absolute secrecy that characterized the move to the Amiens front. The battle of the 8th of August had so shaken the Germans that they were expecting further attacks in all parts of the line. Moreover, the THIRD BRITISH ARMY had attacked and made good progress just to the south of the Arras front, and it would seem the logical conclusion that the Germans would expect an attack on the high ground around Monchy le Preux, to the east of Arras and south of the river Scarpe. This high ground was a menace to the further advance of

the THIRD ARMY to the south, and it was to clean up this sector and form a defensive flank along the Scarpe that the Canadian Corps was to be employed.

The 2nd and 3rd Canadian Divisions arrived in the FIRST ARMY area at approximately the same time, field ambulances accompanying their respective brigades. No. 4 Field Ambulance of the 2nd Division arrived at Wavrans at 11 a.m. on the 21st, and the same day moved to Hernicourt. On the 23rd headquarters of the unit moved to Wanquetin, one section going to the Brickworks near this village, where the medical station was taken over from No. 5 Canadian Field Ambulance, which had relieved a British unit. It was first intended that the 2nd Division should have its divisional main dressing station at the Brickworks; however, upon instructions from the D.D.M.S. of the Corps, this section moved to Agnez-les-Duisans, where it was finally decided to have a corps main dressing station.

No. 5 Field Ambulance arrived at Aubigny at 2.30 a.m. on the 21st, and moved by bus to the Brickworks, where it relieved the 46th British Field Ambulance. The advanced dressing station at Achicourt was also taken over at midnight on the 21st/22nd, and on the 23rd, after handing over the medical station at the Brickworks, the headquarters moved to Achicourt, in order to be well forward for the coming operations, as the O.C. of this unit was placed in charge of clearing the divisional front.

No. 6 Field Ambulance arrived at Wavrans at noon on the 21st, and that evening moved to Herlin-le-Sec, where the transport joined up, and on the 23rd the whole unit moved to Avesnes-le-Comte, where a divisional rest station was established.

No. 8 Field Ambulance, 3rd Canadian Division, debussed between Grouches and Lucheux at 3 a.m. on the 21st, and marched to Humbercourt, arriving at 5.45 a.m.

That evening, at 9.45 p.m., the unit moved to Warluzel, where it rested on the 22nd, collecting sick of the 8th Infantry Brigade. On the 23rd this field ambulance was brigaded with the 9th Infantry Brigade, and moved to Givenchy-le-Noble, arriving at 10 p.m., and, early on the 24th, with the brigade, moved to the Agnez-les-Duisans area, the field ambulance establishing headquarters in the village. On the 25th the headquarters and tent division moved into Arras and established a collecting post for walking wounded in the Ecole des Jeunes Filles, the transport remaining at Agnez-les-Duisans, while the bearer division reported to the O.C. of No. 9 Field Ambulance, who had been placed in charge of clearing the 3rd Division front.

No. 9 Field Ambulance, which was also moved by bus from the Amiens front, arrived at Haute Visée at 7 a.m. on the 21st, and left at 11.30 p.m. next day, arriving at Villers-sire Simon at 6.30 a.m. on the 23rd. On the night of 23/24th the unit, less transport, which went to Agnez-les-Duisans, moved into Arras, where headquarters were established at the Ecole Normale near the station. The same night the advanced dressing station at the Ecole des Jeunes Filles, St. Sauveur, G.29.c.6.4 was taken over from the 47th British Field Ambulance, and arrangements were made to take over the front. On the 25th the bearers went forward and the O.C. made his headquarters at the St. Sauveur advanced dressing station.

No. 10 Field Ambulance arrived at Bouquemaison at 1 p.m. on the 20th and immediately marched to le Souich. On the night 22nd/23rd, in company with the 7th Brigade, this unit moved to Villers-sire Simon, arriving at 8.30 a.m., and the same evening continued the march to Agnez-les-Duisans. On the 24th and 25th preparations were made, in conjunction with No. 4 Field Ambulance, 2nd Division, to establish the corps main dressing station.

For the battle of Arras the Canadian Corps was taking over from the XVII Corps, and the D.D.M.S. Canadians called upon the D.D.M.S. of the latter corps on the 23rd, and arranged for the relief of medical units in the forward area. On the 24th, at a conference at the office of the D.D.M.S., medical arrangements for the coming fight were carefully discussed. At this conference were present the A.Ds.M.S. and D.A.Ds.M.S. of the 51st (Highland) Division, which was attached to the Corps, and the 2nd and 3rd Canadian Divisions. These arrangements were as follows:—

Casualty Clearing Stations—

Nos. 1, 7 and 33, for stretcher cases, Ligny-St. Flochel.
No. 42, walking cases, Mingoval.
No. 57, serious cases, Mingoval.

Main Dressing Stations—

(1) St. Catharines. 51st (Highland) Division, North of Scarpe River.
(2) Agnez-les-Duisans. Canadian Divisions South of Scarpe River.

Walking Wounded Collecting Posts—

(1) St. Nicholas, 51st (Highland) Division.
(2) Ecole des Jeunes Filles, Arras, Centre Division.
(3) Achicourt, Right Division.

Advanced Dressing Stations—

(1) Athies, 51st (Highland) Division.
(2) St. Sauveur, Centre Division.
(3) Beaurains, Right Division.

No. 8 Motor Ambulance Convoy, reinforced by cars from other convoys, was to serve the Corps; many lorries and busses were also allotted for the conveyance of walking wounded.

By the 24th, the 2nd and 3rd Canadian Divisions had completed taking over the line from British troops, and these, with the 51st (Highland) Division, which was to the north of the river Scarpe, made the attack early on the morning of the 26th. The jumping-off line extended

from Neuville-Vitasse directly north to H.31.b.9.0 and thence northeast to the river at H.22.a.2.2. From this latter point it extended to H.23.a.1.6 and thence due north to near the village of Gavrelle. The 2nd Division attacked to the south of the main road, while the 3rd Division attacked between the road and the Scarpe river, and in touch with the 51st (Highland) Division to the north. In describing the work of the medical service in this battle, each division will be followed until relieved in the line.

2nd Canadian Division Front.

By the 25th the field ambulances of the 2nd Division were located as follows:—

No. 4 Field Ambulance at the main dressing station, Agnez-les-Duisans.
No. 5 Field Ambulance, headquarters in Achicourt, and the O.C. in charge of clearing the front.
No. 6 Field Ambulance in Avesnes-le-Comte.

The 2nd Division, on taking over the line, at first used the advanced dressing station at Achicourt, but in anticipation of an advance, the O.C. No. 5 Field Ambulance decided to establish his advanced dressing station farther forward in dugouts on the road from Beaurains to St. Sauveur, at M.4.d.8.3 and to use the Achicourt station as a divisional collecting post for walking wounded. The attack on this front was made by the 4th Brigade on the left and by the 6th Brigade on the right; these brigades being served by the respective brigade bearer parties of 200 men each assisting the field ambulance bearers. All bearers rendezvoused at the Beaurains dressing station late on Sunday night, the 25th, preparatory to going forward to battle positions. While at this rendezvous an opportunity was taken by the O.C. No. 5 Field Ambulance, who was immediately responsible, to go over the different routes of evacuation and to locate medical stations on the map.

The disposition of bearers was as follows:—

Clearing the 4th Brigade.—200 4th Brigade regimental bearers—1 officer and 60 men of No. 4 Field Ambulance —1 officer and the bearers of "A" Section No. 5 Field Ambulance.

Clearing the 6th Brigade.—200 6th Brigade regimental bearers—Bearer Division of No. 6 Field Ambulance.

It was originally intended to assemble all bearers behind Telegraph Hill, N.12.b.central, at 4 a.m., from which point they would deploy to the right and left and cover the battlefield. Zero hour had been set for 4.30 a.m., but quite late, the hour was advanced to 3 a.m., and as information of this change only reached the medical personnel at 2.40 a.m., the bearers did not arrive at the assembly area until half an hour after the troops went forward. However, by daylight, the field ambulance and brigade bearer parties were close up with the infantry, and busily engaged in searching the battlefield for wounded.

On the left wounded were carried around Telegraph Hill to a collecting and loading post on the Tilloy-Beaurains road at M.6.c.3.8 and thence to Beaurains by horsed ambulance and later by motor ambulance. At 4 a.m. a picket was placed at the cross-roads in Tilloy at N.1.a.7.1, for the purpose of directing wounded to the advanced dressing stations in Beaurains and Achicourt. Later, at 7 a.m., a second picket was stationed at Feuchy Chapel on the Arras-Cambrai road at N.3.b.8.1, to direct walking wounded to the cross-roads at N.8.d.6.8, where a second loading and collecting post had been established.

On the right brigade front, the first collecting and loading post was established on the Beaurains-Neuville-Vitasse road at M.18.d.8.3 about 8 a.m., at which time ambulance wagons got forward this far, and cleared to the advanced dressing station at Beaurains. Later in the morning motor ambulances cleared from this point direct to the main

dressing station at Agnez-les-Duisans. About noon, motor cars got through to a loading post at N.20.b.4.8, from which point wounded were cleared direct to the main dressing station, but, during the morning, many wounded from the right brigade were evacuated through the collecting posts on the left. During the afternoon, all wounded from both brigades were carried back to the Tilloy-Wancourt road, where they were picked up by motor ambulance cars and evacuated through to the main dressing station.

By 10 a.m. the divisional objective for the morning on a line east of Guemappe was reached, and at 11 a.m. a collecting post was established on the Arras-Cambrai road at N.11.b.9.4, and later a second post was established just west of Wancourt at N.16.d.3.2. At this time most of the walking wounded were directed to the latter station, where, towards evening, it was possible to evacuate them by light railway. The post on the main road at N.11.b.9.4 was quite far forward and some difficulty was experienced in clearing it. The road was easily passable for motors except at one spot some 500 yards from the dressing station. Cases, therefore, had to be carried to an ambulance car just to the west of the impassable part of the road, where a loading post was established, but as this was under observation by the enemy it was not possible to have more than one car stationed at this point. As soon as each car was loaded and had left for the rear area, a second car took its place from a motor ambulance rendezvous further west on the road, thus establishing a more or less continuous service.

During the night of the 26/27th, many of the stretcher bearers bivouacked on the field, while others returned to the dressing stations at Wancourt and at the Cave, N.11.b.9.4 and were ready for the further advance the next morning. The attack started at 10.30 a.m. and continued over the

Cojeul river through Vis-en-Artois up to the Sensee river. The fighting was severe and many wounded were cleared by hand-carriage to the Cave at N.11.b.9.4, which became an advanced dressing station, while ambulance cars during the afternoon of the 27th ran forward on the main road, collecting nests of wounded as far forward as the Quarry at O.15.c.2.5. The Arras-Cambrai road was the main route of evacuation, the great majority of wounded being carried to this road and from there evacuated. However, many wounded were carried back along the Cojeul river to the west of Guemappe and thence north to the advanced dressing station at the Cave. The large number of German prisoners assisted greatly in rapidly clearing the field, doing much of the hand-carrying, and by 7 p.m. the last stretcher cases had been cleared from the advanced dressing station. Walking wounded were cleared by empty duty lorries from the Cave and from Wancourt to the dressing station at Beaurains.

Fighting continued on the 28th. The attack started at 12.30 p.m., and in preparation all bearers were assembled in Triangle Wood Quarry. From the first the attack met with determined resistance, the infantry encountering both machine-gun and artillery fire, and many casualties occurred with little gain of ground. The heavy machine-gun fire greatly interfered with the collection of wounded and made the work very difficult. During the morning of this day a loading post and temporary advanced dressing station was established near St. Rohart Factory at O.15.c.8.2, through which most of the wounded were cleared. In the afternoon a collecting post was established at O.26.c.5.7 on the Guémappe-Cherisy road, through which a considerable number of wounded were evacuated to the old post just west of Wancourt at N.16.d.3.2. During the afternoon of the 28th, and all through the night of the 28/29th, a

systematic search for wounded was organized, and some sixty stretcher cases were brought in. Many of these were collected close to the front line, which was quite inaccessible during daylight. The last three cases were located just at the break of day on the 29th in a dugout in one of the most forward outposts and the bearers in charge of these cases had a most exciting time. German snipers got on to this party and it was only by the timely diversion caused by one of our airmen, out on an early patrol, coming down quite low and using his machine gun on the trench in which these snipers were located, that our bearers were able to get their wounded back without further casualties. This was possibly one of the most unique experiences in stretcher bearer work and was a good example of the gallant co-operation of the R.A.F. with the troops during battle.

During the night of the 28/29th the 2nd Division was relieved in the line by the 1st Division, and all bearers were withdrawn from the forward area and medical posts handed over. Field ambulance personnel moved into the reserve area, where the units were located as follows:—No. 4 Field Ambulance at Wanquetin, No. 5 Field Ambulance at Achicourt, No. 6 Field Ambulance at Avesnes-le-Comte.

3rd Division Front.

The 3rd Canadian Division had completed taking over the line from the 15th (Scottish) Division by the night of the 23rd/24th, and the field ambulances were located as follows:—

No. 8 Field Ambulance in charge of the main dressing station for walking wounded in the Ecole des Jeunes Filles, Arras.

No. 9 Field Ambulance—headquarters in the advanced dressing station at St. Sauveur and the O.C. made responsible for the front.

No. 10 Field Ambulance—headquarters in the main dressing station for stretcher cases at Agnez-les-Duisans.

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On the afternoon of the 24th divisional orders were issued for the 8th Infantry Brigade to attack on the morning of the 25th, but this date was changed, and the attack took place in conjunction with the 2nd Division on the 26th. A reconnaissance of the forward area demonstrated the fact that the Arras-Cambrai road would be the chief route for the evacuation of wounded, although, weather permitting, Pelves road and track could be used by motor and horsed ambulances. The Officer Commanding No. 9 Field Ambulance had at his disposal the bearer divisions of all three field ambulances and made his report centre and headquarters in the advanced dressing station at St. Sauveur, G.29.c.6.4, from which point he directed the work of clearing the battlefield and received reports as to the progress of events. As the 3rd Division troops were working all to the left of the main road, and the main attack was planned to come from the left and north, in order to take Monchy le Preux from that flank, it was decided to establish collecting and car posts on the cross-country roads and tracks leading from the front. As in the Amiens battle, all wounded had ultimately to be brought to the main road before being transported to the main dressing station, and to this end the horsed ambulance wagons and wheeled stretchers were to be used, leaving the motor cars for work on the paved roads. During the early morning of the 26th, motors did use the country roads, but the rain later in the morning quickly rendered these impassable for all wheeled transport; even the wheeled stretchers[1] were not of much use on this occasion.

Shortly after 3 a.m., zero hour, a collecting and car post was established for the right battalion at H.31.a.3.3

[1] Twenty wheeled stretchers of different types were allowed to each division. These were used to relieve the bearers in the carry from R.A.Ps. to A.D.S., where the condition of the ground or the nature of the fighting prevented other wheeled transport being used.

on the Cambrai road. About 7.30 a.m. this post was pushed forward to N.3.b.9.3 as the R.A.P. of the 5th C.M.R. Battalion had moved forward and was located on the artillery track about half way to Monchy.

In the centre a collecting post was first established on the Pelves road at G.30.c.9.4 with the object of clearing the centre battalion along this road. About 5 a.m. this post was moved to H.25.d.9.1, and still later, at 7.30 a.m., to H.33.a.8.8. Wounded from this last post were carried to the post at H.25.d.9.1, from which point ambulance cars cleared during the early part of the morning. About 10.30 a.m. an advanced collecting post was established on the Pelves-Chapel road at H.28.c.4.1.

In order to cover the whole front and to provide for the extreme left, a post was established at H.25.b.5.7 at zero hour, and was moved forward about 4.30 a.m. to Battery Valley, H.26.b.6.5. Later in the morning, about 10.30 a.m., the personnel from this post joined the post at H.28.c.4.1. About 10.30 a.m. the collecting post at N.3.b.9.3, to which point all wounded were now going became a car post, which was cleared by motor ambulances. By this time the country roads were practically impassable for wheeled transport, and it was necessary to carry all wounded to the main road, a very long distance through the mud for the stretcher bearers. In the afternoon, about 3 p.m., the car post at N.3.b.9.3 became the advanced dressing station.

During the fighting on the 3rd Division front on the 26th there was no congestion of wounded at any point. By the afternoon, when the troops had advanced some 6,000 yards, the main dressing station was set up in the Hospice St. Jean in Arras, thus reducing the run for motor ambulance cars. All wounded were cleared before dark on the 26th, and a certain number of stretcher bearers

returned to the advanced dressing station at St. Sauveur for the night in order to be rested for the continued advance on the 27th.

The advanced dressing station at St. Sauveur early in the day received a direct hit, the shell landing in the courtyard where a number of field ambulance bearers were resting. Five C.A.M.C. personnel, including a Quartermaster-Sergeant, were killed, and several others wounded. The walking wounded main dressing station in the Ecole des Jeunes Filles, Arras, was also hit by a shell from a long range gun, which was paying much attention to the main road and the city of Arras itself. At this dressing station one driver was killed and several German prisoners were wounded, as well as two lorries being destroyed.

Early on the 27th, the 43rd, 52nd and 116th Battalions of the 9th Brigade took up the attack on the right of the divisional front from the 7th Brigade, which had passed through the 8th Brigade after the capture of Monchy. For this advance a collecting post was established at N.11.b.3.8, and about 1.30 p.m. it was moved to N.12.b.5.4. As the advance continued the dressing station at N.3.b.9.3 was moved forward to N.12.b.5.4. During the early part of the 27th a certain number of wounded from the left front were cleared through a collecting post at H.34.d.5.5 to the A.D.S. at N.3.b.9.3. Later in the day wounded were cleared through a post at O.2.c.2.5 by way of Monchy to the new advanced dressing station at N.12.b.5.4. Motor ambulance cars were getting through to this latter point by the early afternoon and four lorries from the walking wounded main dressing station were also clearing from the station at N.3.b.9.3. During the day of the 27th there was no congestion at any of the field ambulance stations, although there was some difficulty in keeping the battalion areas clear on account of the long carry which was by now

about 2,500 yards. Horsed ambulance wagons could not work on the cross-country roads forward of the posts on the main road, and were therefore used to carry walking wounded to the post at N.3.b.9.3, where they were transferred to lorries.

On the 28th, battalions of all three brigades of the division were employed in pushing the line through Pelves, Boiry and Remy. The fighting was very fierce and many wounded came in from all parts of the front. The farther the advance progressed the longer the carry for stretcher bearers became, and relay posts were established. For the right a post was located at O.4.d.3.4, from which point wounded were relayed to the main road at O.15.c.3.7, where a loading post had been placed. On the left a post was formed at O.1.b.9.9, through which wounded were relayed to N.12.b.5.4.

Up to the morning of the 28th all casualties had been collected and cleared by the field ambulance bearers over very uneven and muddy tracks; the carry in most cases was from 3,000 to 4,000 yards. In order to relieve the situation during the 28th, each brigade of the division supplied a carrying party of seventy-five men, who were placed under the orders of the field ambulance officers. This increased bearer strength materially helped in getting all wounded out by the evening of the 28th. During the afternoon of that day the walking wounded lorries went as far forward as N.12.b.5.4, while the horsed ambulances worked between that point and O.15.c.3.9.

On the night of the 28/29th, the 3rd Division was relieved in the line by the 4th (British) Division, the forward clearing being taken over from No. 9 Field Ambulance by the 11th British Field Ambulance. At the same time, No. 10 Canadian Field Ambulance was relieved by the 10th British Field Ambulance in the main dressing station

for stretcher cases, and No. 8 Canadian Field Ambulance was relieved in the main dressing station for walking wounded by the 12th British Field Ambulance. Upon relief of the 3rd Canadian Division, Nos. 8 and 10 Field Ambulances moved into the Institute for the Blind in the northeast part of Arras, while No. 9 Field Ambulance moved into the Ecole Normale in the southwest part of the city. While in the reserve area, each field ambulance was made responsible for the collection of sick from one brigade, and a divisional rest station was established in the Institute for the Blind.

1st Division Front.

On the 25th of August, the day before the attack at Arras, the Field Ambulances of the 1st Division entrained on the Amiens front for the north, where they arrived on the 26th, and moved forward to be in a position to relieve the 2nd Division.

No. 1 Field Ambulance arrived at midnight 25/26th at Tinques, and immediately proceeded to Maizières, where it rested on the 26th. That same evening the personnel were moved by bus and lorry to the Dainville area, where they arrived about 10 p.m. On the 27th the move was continued by route march to near Beaurains, and the unit located at M.6.c.3.7. During the 28th and the night of the 28/29th No. 1 Field Ambulance relieved No. 5 Field Ambulance of the 2nd Division at the medical posts in St. Rohart Factory, the Quarries near Vis-en-Artois, and at O.25.b.8.8, and on the 30th the headquarters moved to Wancourt, the transport remaining at M.6.c.3.7.

No. 2 Field Ambulance arrived at Savy late on the 25th, and immediately moved to Pénin, where it remained until the 27th. On the 27th the unit moved to Anzin by bus, and later in the day by route march to Arras, where

the personnel was located in the Ecole Normale, the transport not arriving in Arras until the 28th. On the 29th the headquarters moved to a field ambulance site near Beaurains, and bivouacked alongside No. 1 Field Ambulance at M.6.c.3.7. On the 30th the headquarters moved forward to Wancourt.

At 6 p.m. on the 25th No. 3 Field Ambulance arrived at Aubigny, and was billeted at the old casualty clearing station site near the station. The next evening the personnel moved by bus to Arras, and from there by route march to the field ambulance site at St. Sauveur, C.29.c.5.3. On the 27th the personnel for forward duty moved to the Neuville-Vitasse-Beaurains area, and on the 28th one officer and thirty bearers took over the post at Wancourt, while one officer and one tent subdivision relieved No. 5 Field Ambulance at the Beaurains post for walking wounded. The same afternoon one officer and one tent subdivision, with clerks, moved into Arras and prepared to take over the main dressing station from No. 4 Canadian Field Ambulance. The walking wounded post at Bergère, N.12. central, was also taken over from No. 5 Field Ambulance. On the 29th the remainder of the unit and headquarters moved into Arras, and completed taking over the main dressing station, which was shared with the 10th Field Ambulance, 4th (British) Division.

On the night 28/29th, the 3rd Canadian Infantry Brigade relieved the right brigade of the 2nd Division, while the 2nd Infantry Brigade took over from the left brigade of the 2nd Division. The Officer Commanding No. 1 Field Ambulance was made responsible for clearing the divisional front, and had at his disposal the bearers of Nos. 2 and 3 Field Ambulances. The Officer Commanding No. 3 Field Ambulance, who was placed in charge of the main dressing station at the Hospice St. Jean, Arras,

in addition to his own tent division, had attached to his unit for duty one medical officer and two tent subdivisions of No. 1 Field Ambulance, and two medical officers and two tent subdivisions of No. 2 Field Ambulance.

For the coming fight it was the intention that the bearers of Nos. 1, 2 and 3 Field Ambulances, while acting under the orders of the O.C., No. 1 Field Ambulance, should as far as possible, clear their respective brigades. Personnel from No. 1 Field Ambulance were made responsible for the working of the two advanced dressing stations which had been taken over, namely, for the left at St. Rohart Factory, O.15.c.8.2, and for the right near Cherisy, O.26.a.2.3.

Owing to the 2nd Division attacking during the afternoon of the 28th, the medical posts in the immediate forward area were not completely taken over, but were shared with the 2nd Division, so that the medical personnel of this division might have an opportunity of clearing their wounded before handing over the line.

During the 29th it became apparent that the walking wounded from the divisional front, except on the extreme left, made their way towards Wancourt, and not towards the main Arras-Cambrai road where a divisional walking wounded post had been established at N.12.central. It was therefore decided to re-open the post at Wancourt, N.16. d.2.3 as a walking wounded post, where records were to be taken of all patients passing through. These cases were immediately transferred by horsed ambulances to the station at N.12.central for evacuation by lorry to casualty clearing station.

On the morning of the 30th certain minor operations were carried out by the 4th (British) Division on the left, and the 1st Canadian Division on the right. This was for the purpose of improving our position and securing a good jumping-off line for the larger operation of breaking the

Drocourt-Quéant line, which formed part of the Hindenburg system. Again, on the 31st of August and the 1st of September, further limited attacks were made, resulting in small but important gains of ground. The casualties from this fighting were not heavy, and the wounded were quite easily taken care of and evacuated to the main dressing station in Arras. During this fighting on the left brigade front, a collecting post was established at O.22.b.2.8, through which wounded were cleared to the advanced dressing station at O.15.c.8.2, via the main road. On the right, the bearers of No. 3 Field Ambulance cleared through a collecting post at O.33.c.6.5 to the advanced dressing station in charge of No. 1 Field Ambulance at O.26.A.2.3. During the morning of the 31st motor ambulances were sent up to this latter collecting post, but owing to the heavy enemy shell fire this procedure had to be discontinued. The motor cars continued to clear stretcher cases from the two advanced dressing stations into Arras, while the walking wounded were cleared by lorries from the divisional walking wounded post on the main road. The light tram cars cleared many of the slightly wounded from Wancourt to the unloading point at St. Sauveur.

On the 1st of September the battalions of the 3rd Infantry Brigade moved forward to the attack, making a gain of about 1,000 yards in depth. During the evening of this day, in preparation for the continued fighting on the 2nd, the advanced dressing station on the right was moved forward to a point at U.10.b.7.8, in order to be more in touch with the collecting post, which had been moved to U.5.c.6.6.

During the night 31st of August/1st of September, the 4th Canadian Division relieved the left brigade of the 1st Canadian Division on the northern half of the front, and No. 12 Field Ambulance took over the medical posts at N.12. central and O.15.c.8.2.

4th Canadian Division.

While the medical units of the 1st Canadian Division were taking over from those of the 2nd Canadian Division, the 4th Canadian Division troops were arriving in the rear corps area, the field ambulances accompanying their respective brigades. On the 28th No. 11 Field Ambulance arrived at Acq at 1.30 a.m., and was immediately conveyed by bus and lorry to Berneville, arriving at 4.30 a.m. The unit rested until the morning of the 29th, when it moved at 10.30 a.m. to Neuville-Vitasse, via Wailly, Ficheux and Mercatel.

During the move of No. 11 Field Ambulance on the 29th, the O.C., Lieut.-Colonel H. H. Moshier, went forward in an ambulance car to interview the medical personnel of the 1st Canadian Division regarding the relief, and also to look over the section of the front he was to take over. While held up by a block in the traffic near the cross-roads at Wancourt he was killed by a shell from a long range gun directed by an aeroplane. The driver of the car was also killed, the shell bursting overhead, quite low. The death of this officer under such circumstances was most unfortunate and was deeply felt by the whole medical personnel of the Corps. He was keen, capable, and never satisfied unless he had a personal knowledge of the ground over which his bearers were to work. The funeral took place next day at the little village of Villers-au-Bois, in the rear of Vimy ridge, a spot familiar to many thousands of Canadians.

No. 12 Field Ambulance arrived at Marœuil at 5 a.m. on the 28th, and immediately marched to Anzin where the transport, which had left Longueau on the Amiens front on the 26th, also arrived at 3.30 p.m. On the 29th the personnel marched to Tilloy, where fairly good accommodation was secured in a large dugout, while the transport, excepting two water carts, one limber, a field kitchen,

and three horsed ambulances, remained at Anzin. The main part of the transport on the 30th moved from Anzin to Agny, while the personnel remained at Tilloy. On the 31st, in preparation for taking over the line for active operations, stretcher squads were sent forward and attached to battalions, and the advanced dressing station at St. Rohart Factory and the divisional walking wounded station at N.12. central were taken over from the 1st Canadian Division.

At 4 p.m. on the 28th No. 13 Field Ambulance arrived at Aubigny, and moved by bus to *Y* Huts, near Duisans. The next day the personnel marched to Beaurains, where a dressing station for local troops was opened. At the same time the transport moved into Achicourt, and the next day to Beaurains. On the night 31st of August/1st of September, the bearers of this unit were sent forward and attached to the 10th Canadian Infantry Brigade.

By the 1st of September the 4th Canadian Division had completed taking over the line, and the three divisions, namely, the 4th (British) on the extreme left, the 4th Canadian in the centre, and the 1st Canadian on the right, were in position and ready for the last phase of the battle of Arras and the breaking of the Hindenburg line.

Rear Area.

During the first stage of the battle of Arras, 26th of August to 1st of September, there was no serious difficulty in the evacuation of wounded from the dressing stations in the forward area or in their further evacuation to casualty clearing stations. Upon return to the Arras front the Corps was very fortunate in having again attached to it No. 8 Motor Ambulance Convoy. This most efficient unit had been working with the Canadian Corps for somewhat over a year, was quite familiar with the forward and rear areas

on this front, and at all times gave excellent and willing service. The unit was reinforced by motor ambulances from other convoys in the army area, and at no time was there any doubt that everything possible would be done to evacuate our wounded with the least possible delay.

As usual, the main roads from the battle front were very much congested with traffic, and as the advance progressed quickly the main dressing station was soon far to the rear. On the morning of the 26th the location at Agnez-les-Duisans was hopelessly out of reach, but on the same afternoon the D.D.M.S. of the Corps pushed forward one of the units working in the main dressing station and established a second main dressing station in Arras. This new station was receiving about 6 p.m. on the night of the 26th, and during the night 26/27th, the full equipment and personnel from the Agnez-les-Duisans station were moved up.

The casualty clearing stations at the beginning of the battle were reasonably far back, in their normal positions for peace time warfare. The First Army authorities, however, were quite prepared, and apparently had reserve units ready for a move forward as soon as the situation permitted. The Agnez-les-Duisans hut encampment was admirably located for casualty clearing stations, being close to railhead, as well as being on the main road. This site was immediately taken over and prepared by the Army, and on the 28th, No. 23 C.C.S. moved in, followed by Nos. 1 and 4 Canadian C.C.S.s on the 31st. No. 23 C.C.S. admitted all walking and slightly wounded, while the two Canadian C.C.Ss. cared for stretcher cases and the more seriously hit.

By the 1st of September, the main dressing station in Arras was about nine miles from the front line, considerably farther than would be allowed if ideal conditions were possible. As the area in front of Arras had been fought over

for several years, nothing suitable in the way of buildings could be secured. To have advanced our main dressing station would have necessitated going into the open and using canvas, a procedure not considered advisable after our experience during the battle of Amiens. Night bombing was still being resorted to by the Germans, and it was almost hopeless to attempt to operate a main dressing station under canvas, where work would be delayed and often interrupted during night-time. It was therefore decided to continue to use the buildings in Arras as long as possible. This was considered feasible if the light railway could be used as an auxiliary in the evacuation of our wounded, thus freeing many of our motor ambulance cars for work in the forward area. The tram system during the last few days of August had been pushed close up to the line, and gave promise of materially assisting the work of the medical service. An unloading point was established where the tram line crossed the road at the St. Sauveur dressing station on the outskirts of the city of Arras, from which point a few motor ambulance cars were able to transfer patients to the main dressing station. During the later operations from the 2nd of September up to the time the Canal du Nord was reached, this light railway system was used to the fullest extent, thus making it possible to evacuate and keep clear the forward area even after another advance of some 9,000 yards was made. During the afternoon of the 1st of September the light railway was pushed forward to within a short distance of the main road at O.24.c., and during the day of the 2nd of September finally reached the road, where a collecting and loading post was established for the whole front.

It was always with a great deal of satisfaction that the personnel of the C.A.M.C., either in preparation for, or during battle, noted the rapid approach of the light railway

to the front line. This branch of the service in the Canadian Corps was in charge of most efficient officers who invariably gave every consideration to the medical service, and planned beforehand to lend all assistance possible in the evacuation of wounded. In previous battles, as in quiet times, the Canadian Corps had been so well served by the light railway that, wherever available, this important service was always counted upon and preparations made accordingly. On occasion the demand for ammunition and supplies made it difficult for those responsible to provide sufficient trucks for the evacuation of wounded, but the medical service knew that it was due only to stress of circumstances if the light railway was not doing its full share in clearing from well forward to the rear medical stations.

On the 30th of August Nos. 1 and 5 Canadian Sanitary Sections, upon their return from the Amiens front with the 1st and 4th Canadian Divisions, located in St. Sauveur and Achicourt, respectively; No. 1 being made responsible for inspecting the sanitary conditions of the Corps area to the north of the main road, while No. 5 was responsible for the area to the south of the road.

Sanitary Sections.

Both on the Amiens and Arras fronts, where deep penetrations into enemy territory were made, it was felt by divisions that sanitary sections were urgently needed in the newly won area, and should be available at the earliest possible moment after the advance had taken place. In 1918 these sections were not divisional troops, but were under the administration of the Canadian Corps, and, therefore, did not necessarily move with divisions. In the early part of the war, sanitary sections were divisional troops, and responsible at all times for the sanitary inspec-

tion of the area occupied by the division. In the Canadian Corps this arrangement gave every satisfaction, but during the long period of trench warfare, when the divisions of the British Army were continually on the move from front to front, it was thought that the proper sanitary inspections were not being made owing to so much time being lost in moving about the country and changing sanitary areas. It was therefore proposed that sanitary sections should become army troops, and that to each should be allotted a definite sanitary area. This proposal was put into effect, and each section soon became familiar with all sanitary arrangements in its permanent area. Workshops were established and exhibits of sanitary appliances for instructional purposes were arranged; it was thus possible to demonstrate what could be done with material which in many instances was considered useless.

In spite of all the apparent advantages of having sanitary sections become army troops, the divisions of the Canadian Corps strongly objected to losing their own units. The argument was, that the O.C. of a divisional sanitary section, while perhaps taking some time to acquire a full knowledge of his new area after a move, was most familiar with the troops of his own division, and had a good knowledge of the peculiarities of certain units regarding matters pertaining to sanitation. As the duties of a sanitary section were, primarily, inspectoral and not constructive, this knowledge of the troops occupying the area was most essential. Moreover, a divisional area very seldom coincided with a sanitary area, thus necessitating dual responsibility and control. This, on occasion, caused confusion and delay in making reports on matters requiring special investigation. However, the Canadian Corps could not be exceptional in retaining sanitary sections as divisional

troops, so a compromise was made whereby these units became corps troops, and were allotted definite areas within the Corps.

In stationary warfare, undoubtedly, the allotting of certain areas to sanitary sections gave general satisfaction, but when a move into enemy territory occurred there is no doubt that sanitary sections should have been immediately available to accompany the troops in the advance, and in this way revert to divisional control.

CHAPTER VII.

DROCOURT-QUEANT OPERATIONS.

Reference Map 3.

By the evening of the 1st of September the three divisions in the line, namely, the 4th British on the left, the 4th Canadian in the centre, and the 1st Canadian on the right, were in position and ready for the further advance on the morning of the 2nd. In the event of success the Canadian Independent Force and the 1st (British) Division were to push through and continue the advance. Zero hour was set for 5 a.m., and promptly at that hour the troops of all three divisions went forward.

1st Canadian Division.

On the right, the 1st Canadian Division attacked with the 3rd Infantry Brigade on the right, and the 2nd Infantry Brigade on the left. The Officer Commanding No. 1 Field Ambulance continued in charge of clearing the front, and had the bearers of all three field ambulances at his command. As in the previous fights of this division the field ambulance bearers worked with brigades, and therefore Nos. 3 and 2 Field Ambulances were in close touch with their respective brigades at zero hour, while the bearers of No. 1 Field Ambulance were in support, to be used with the 1st Brigade.

During the afternoon of the 1st of September information was received by the A.D.M.S. that the tram line was in working order as far forward as O.27.b. central,

and a loading party of one officer and six men was detailed to this point. In the fighting of the previous day the loading post had been at Wancourt, hence the advance of the tram line some 5,000 or 6,000 yards greatly reduced the work of the field ambulance motor cars. Wounded evacuated by the tram line were delivered to the unloading point at the St. Sauveur dressing station, where the D.D.M.S. of the Corps had detailed some of the 3rd Canadian Division medical personnel and ambulance cars to transport and clear all casualties from this point to the main dressing station in Arras. By this method practically all cars of the division were free to work in the forward area. These arrangements were temporarily disturbed during the night of the 1st/2nd of September by the tanks breaking the line in several places just to the east of Wancourt. As a consequence, for a few hours after zero, it was necessary for the ambulance cars to run to the loading post at Wancourt. However, by 8 a.m. the track was repaired, and the loading post at O.27 central was used. As the advance progressed on the 2nd, the tram line was extended, and by shortly after noon had reached a point on the main road at O.24.c.6.2, where a loading post was established by the 4th Canadian Division, but which was used by all three divisions in the attack. It was possible to use this loading post in the early afternoon, and all motor ambulances working in the forward area unloaded here as long as tram cars were available. This meant a great saving to the motor transport of medical units, as a motor car could make the journey to and from the collecting posts in about two hours, instead of taking five or six hours on the trip to Arras and return.

The employment of the tram system for carrying stretcher cases was not only a great saving in time and energy for all medical personnel, but was also a great boon

to the wounded. Badly hit men once placed on a more or less smoothly running train had a much easier trip than if submitted to a seven or eight mile journey in an ambulance car, compelled to travel over uneven and much congested roads broken in many places by partly filled shell holes.

On the 1st Canadian Division front some time before zero hour on the 2nd, a forward advanced dressing station was established at U.10.b.7.8. This was very close to the jumping-off line, but it was hoped that shortly after the troops advanced it would be possible for ambulance cars to reach this station. In the meantime, if necessary, it was intended to also use the old advanced dressing stations at O.26.a.2.3. and O.33.c.8.3.

The attack met with success from the first, although the fighting was very severe and many casualties occurred. The Germans made a determined effort to defend their strong wire entrenchments, but all to no avail; our troops would not be denied and pushed rapidly forward. Wounded were brought to the medical post at U.5.c.6.6, and also later to the post at U.18.d.3.8, and from these by hand carry to the advanced dressing station at U.10.b.7.8, from which point they were cleared shortly after zero by motor ambulances. While casualties were numerous there was no serious difficulty in clearing the front. Enemy shelling was heavy, and in many places the roads in the immediate front were badly cut up, making them extremely bad for motor transport, but fairly good going for stretcher bearers. It was often necessary for the shell holes in these roads to be filled in by the drivers of the cars, and in this way the motor ambulances were able to run well forward and keep in close touch with the field ambulance bearers. On this front most of the clearing was done by the cross-country roads to the south of the main Arras-Cambrai road, and

it was not until later in the afternoon, when the tram loading post was established on it, that cars ran north and out by the main road.

Shortly after noon the infantry had passed through Cagnicourt and Villers Cagnicourt, and the advanced dressing station moved forward and located in the sunken road where good dugouts were found at V.14.b.5.8. During the afternoon the divisional walking wounded post was also moved forward from Wancourt to the old advanced dressing station at O.33.c.8.3. A certain number of lorries and London busses which had been clearing from Wancourt now ran forward to this new walking wounded post, and cleared direct to casualty clearing station. At both the Wancourt and this latter post records were taken of all wounded, and it was therefore possible to evacuate these cases without going through the main dressing station for slightly wounded in Arras. Instructions had been issued that any walking wounded not passing through the Wancourt station were to be delivered to the station in Arras before evacuation. This was for the purpose of taking records. Later in the afternoon the advanced dressing station was again moved to deep dugouts under the cemetery just east of Cagnicourt at V.10.c.2.6. The entrance to these dugouts was very steep and great difficulty was experienced in getting stretcher cases into the dressing room proper. Most of the wounded were therefore dressed on the side of the road, and while this location was only a few thousand yards from the front line, the Germans were still on the move eastward and the dressing station was not unduly shelled. By this time the motor cars were running into Cagnicourt, and although the roads in places were bad, the evacuation of wounded went on with regularity, and almost all cases were out by 9 p.m. The horsed ambulance wagons, as on all other occasions, did good work in

the forward area plying between collecting posts and advanced dressing stations, and in some cases going as far forward as regimental aid posts.

The work of the drivers of these wagons during the early fighting on this front is worthy of special mention. At a point on the main road, near Bergère, where enemy shell-fire was most persistent, the road being the target and the artillery practice good, it was noted that all other transport went by either at a trot or a gallop, while the horsed ambulances, never faltering, continued at the usual slow pace necessary for the welfare of the patients. In most of the fighting during the late war, horse-drawn vehicles were generally the first over the roads in the newly-won area, and it very often fell to the ambulance wagons to "blaze the trail." One is only too apt to forget our good friend the horse in a war of quick movement, where motor transport was such an important factor, but in the medical service, at least, the horse transport was much appreciated, and particularly the horsed ambulances, whose work during action was always in the immediate forward area.

During the night 2nd/3rd, the 1st Canadian Infantry Brigade went into the line and early the next morning pushed forward, keeping in touch with the enemy, who was still retiring, offering but slight resistance. On the 3rd there was no heavy fighting, and the small number of casualties was cleared by the bearers of No. 1 Field Ambulance to the advanced dressing station at V.10.c.2.6 and thence by motor ambulance cars to the tram loading post at O.24.c.6.2. By this time the Germans had been pushed back east of the line of the Canal du Nord, but they still maintained patrols on the west side of the canal. There was no change in the position of the advanced dressing station, which remained just east of Cagnicourt, but wounded were collected to posts established on the left,

early in the morning, at V.10.d.9.3, and during the afternoon in Buissy, V.18.b.4.4, and on the right at V.23.b.6.4. At this time the regimental aid posts of the battalions going through to the final objective were located as follows: 4th Battalion at W.7.c.3.8; 2nd Battalion at V.24.d.9.9.

On the morning of the 3rd orders were received for the relief of the 1st Canadian Division by the 2nd Canadian Division; the 2nd Infantry Brigade, in support, to be relieved by the 6th Brigade on the night of the 3rd/4th, while the 1st Brigade in the line was to be relieved by the 4th Brigade on the night of the 4/5th. The corresponding reliefs of the field ambulances were therefore carried out, and No. 2 Field Ambulance was relieved by No. 6 Field Ambulance on the night 3rd/4th, while No. 1 Field Ambulance was relieved of all forward medical posts by No. 4 Field Ambulance on the night of the 4/5th. Upon relief the bearers of Nos. 1 and 2 Field Ambulances moved back and joined their headquarters in the neighbourhood of Cherisy, where the personnel embussed and moved to Wailly and Wanquetin, respectively; the transport of these units had proceeded earlier in the day. On the 8th No. 1 Field Ambulance moved to Gouves. The bearers of No. 3 Field Ambulance, who had been working in the forward area under the officer commanding No. 1 Field Ambulance, rejoined their unit at the main dressing station in Arras. At noon on the 5th the main dressing station was taken over by No. 9 Field Ambulance of the 3rd Canadian Division, and upon relief, the whole of No. 3 Field Ambulance marched to Berneville and joined the 3rd Infantry Brigade, which was in reserve with the remainder of the division.

4th Canadian Division.

The 4th Canadian Division, which made the attack in the centre, employed the 10th Infantry Brigade on the left divisional front and the 12th Infantry Brigade on the right.

The advanced dressing station was at St. Rohart Factory, while the divisional collecting post for walking wounded was at N.12.central. The officer commanding No. 12 Field Ambulance was in charge of the front, and detailed the bearers of No. 13 Field Ambulance to work with the 10th Brigade, while those of his own unit worked with the 12th Brigade. During the night 1st/2nd of September, bearer parties were attached to battalions, and at zero hour these went forward and kept in close touch with the regimental bearer parties, collecting wounded to posts established just in the rear of the advancing troops. On the left the first collecting post was located at the junction of the Eterpigny and Arras-Cambrai roads, near the tram loading post, which was established later in the day. Shortly afterwards No. 13 Field Ambulance set up a second collecting post at Snipe Copse, P.19.c.2.8, while on the right brigade front No. 12 Field Ambulance collected wounded to a post established about 8 a.m. near l'Esperance Farm, P.26.c.2.5. During the early part of the day wounded were evacuated from these collecting posts by motor cars and horsed ambulances to the advanced dressing station at St. Rohart Factory, and later, as soon as established, to the tram loading post at O.24.c.6.2.

During the morning and the early part of the afternoon of the 2nd, practically all stretcher cases of the 4th Division were evacuated by field ambulance motor cars; thus necessitating a long tedious trip over the very congested Arras-Cambrai road. It was not until the tram line reached the main road that it was possible to relieve the congestion of wounded in the forward area by sending many of the cases back in railway trucks. During the day the whole forward area was heavily shelled, and the medical personnel suffered many casualties among the loading parties and bearers who were called upon to work in the immediate

vicinity of the road. Three men of No. 13 Field Ambulance were killed, and one officer wounded in Vis-en-Artois; also three men were killed and the mechanical transport sergeant and three privates of No. 12 Field Ambulance wounded at the advanced dressing station. The loading post at O.24.c.6.2 became the advanced dressing station late in the afternoon of the 2nd and was a very busy place, as all three divisions in the line delivered wounded to this point for further evacuation either by car or by the tram line. The actual loading point was somewhat in lee of the hill where the road ran in a deep cutting, but the locality was well marked by the German gunners and was given much attention. Shells continued to land in the surrounding fields, an occasional one making a direct hit on the road. During the night 2nd/3rd the enemy airmen also gave trouble at this advanced dressing station, and unfortunately one bomb made a direct hit on the road, destroying an ambulance car and wounding two sergeants and two privates of No. 12 Field Ambulance.

The fighting on the 4th Canadian Division front on the day of the 2nd was very heavy, and many casualties occurred amongst all troops engaged. At one time there was every possibility of many wounded having to remain out during the night, owing to the difficulty of providing ambulance cars for their further evacuation. It was at this time that the light railway again came to the assistance of the medical service; as soon as the trains were running the situation cleared, and the cases still in the forward area were all out by midnight.

In connection with the clearing during the 2nd of September, it will be noted that the 1st Canadian Division, working entirely to the south of the main road, was in close touch with the light railway, and was able to make use of it much sooner than the 4th British and 4th Canadian

Divisions, which were clearing mostly along the main road. As early as 8 a.m. the 1st Canadian Division was using the loading post at O.27.b.central, thus saving its cars much work and allowing many to become available for the forward area. This loading post was also available to the other two divisions by their cars running down the road from Vis-en-Artois to the crossing of the tram line at O.27.b., but it was not used to the same extent as by the 1st Canadian Division. A field ambulance officer detailed as liaison officer to keep in touch with the light railway company might have helped in this matter. In later operations (Canal du Nord to Cambrai) an experienced junior C.A.M.C. officer was attached to the railway construction companies; his sole duty was to keep in touch with the requirements of the medical service at the front, and to represent these requirements to the railway officers, in order that as great a number of trains as possible should be detailed for medical use.

On the night of the 2nd/3rd of September the 11th Infantry Brigade relieved the 12th Brigade, and with the 10th Brigade on the left continued the advance. During the fighting on the 3rd there was not an excessive number of casualties, as the Germans were evidently retiring on the line of the canal and were not offering much resistance. The field ambulance bearers kept in close touch, and on the left those of No. 13 Field Ambulance established a collecting post just to the east of Dury at P.22.d.3.8, while on the right those of No. 11 Field Ambulance, who were clearing the 11th Brigade, established a post at P.27.c.3.7. Horsed ambulance wagons cleared from both these posts to the main road near the corner at the old collecting post, where the wounded were taken over by the motors. During this afternoon, on both brigade fronts, the collecting posts were again advanced, on the left to Récourt, P.24.a.6.8,

and on the right to the old factory at Villers Cagnicourt, P.34.d.6.4. A steady stream of wounded passed through all day, but at no time was there any serious congestion. The tram system materially helped as on the previous day, and when at times trucks were not available, the motor cars were called upon to make the long trip to Arras. By the evening of the 3rd the front line on the Arras-Cambrai road was fourteen miles from the main dressing station, and the greatest difficulty would have been encountered in keeping the forward area clear if many motor cars had been forced to run the whole distance into Arras.

Again one must say a word of appreciation of the work of the light railway, and the officers responsible for its operation. Particularly on the 2nd and 3rd of September did it come to the assistance of the medical service, making a rapid evacuation possible in a situation that might otherwise have been the reverse. It is understood that some difficulties arose with other departments in the matter of supplies and ammunition during this period, presumably owing to trucks being delayed whilst carrying wounded, and the D.D.M.S. of the Corps was called upon to make explanations in this connection. However, as far as is known, the tactical situation was not affected, and from the standpoint of the medical service the clearing during these operations was most expeditiously carried out, and the wounded delivered to the main dressing station in the best possible condition, which, after all, was a very great consideration.

On the evening of the 3rd, the regimental aid posts of the battalions in the forward area were located as follows:—

On the left the medical officer of the 44th Battalion was located at P.18.d.3.6., while the 46th Battalion was at Q.19.a.6.5. On the right divisional front the 87th Battalion was at Q.20.c.9.9., the 54th Battalion at Q.26.b.8.3., and the 102nd Battalion at W.1.c.6.4. The regimental aid post of the 75th Battalion, in support, was at P.34.d.8.8.

The fighting on the whole front had quieted down, and on the 4th of September a few wounded came in and were evacuated in the ordinary way by motor cars. On this day the tram was not really necessary, as the wounded were not numerous and the railway was only used when trucks were returning empty in the course of the day's work. During the day the A.D.M.S., 3rd Division,[1] looked over the front area with a view to taking over. It was during this day that the A.Ds.M.S., 3rd and 4th Canadian Divisions, had their first experience of meeting and affording hospitality to French refugees from the other side of the line. Some fifty French civilians, who apparently had eluded the enemy in his retirement, were discovered in Ecourt St. Quentin. They were badly in need of food and clothing, and were immediately taken in charge by the medical officer at the advanced dressing station, who provided for their wants and sent them back to the main dressing station in Arras to be turned over to the French authorities.

During the 5th of September the medical personnel of the 3rd Canadian Division went forward and took over all forward posts, and the 4th Canadian Division Field Ambulances moved back to the reserve area, and were located as follows:—

No. 11 Field Ambulance at Guemappe, N.18.b.9.0.; on the 6th to N.8.a.9.3.

No. 12 Field Ambulance near St. Rohart Factory, O.15.a.; on the 8th to Wailly.

No. 13 Field Ambulance near Beaurains, with sufficient personnel taking over the Canadian Corps Centre in the Institute for the Blind.

[1] Lt.-Col. C. P. Templeton, C.B.E., D.S.O., late O.C. No. 3 Field Ambulance, 1st Division, and later Acting D.A.D.M.S., Canadian Corps, assumed duty as A.D.M.S., 3rd Division, on the 1st of September. Colonel A. E. Snell, C.M.G., D.S.O., who had been A.D.M.S. of this division for the last twenty-eight months, went to Corps Headquarters as D.D.M.S. on the 2nd of September. Colonel (later Brig.-General) A. E. Ross, C.B., C.M.G., who had been D.D.M.S. of the Corps for the last year and a half, was appointed D.M.S., Canadians, at G.H.Q., and left for the 2nd Echelon on the 6th of September. Major R. M. Gorssline, D.S.O., D.A.D.M.S., 3rd Division, became D.A.D.M.S., Canadian Corps, while Major (later Lt.-Col.) E. L. Warner became D.A.D.M.S., 3rd Division.

British Divisions.

It is not the intention to give here a detailed account but rather a short summary, of the work of the medical service of the British divisions that were attached to the Canadian Corps during the operations from Arras to the Canal du Nord between the 26th of August and the 7th of September. The 51st (Highland) Division, which attacked to the north of the river Scarpe on the 26th, cleared all wounded to the main dressing station at St. Catharines. On the left divisional flank a collecting post was established at le Point du Jour, from which wounded were carried to the advanced dressing station in Athies. Later in the morning the road into Athies became available for wheeled transport, and this collecting post was cleared by horsed and motor ambulances. On the right flank it was also necessary to carry stretcher cases to the advanced dressing station direct from the front line. Early on the morning of the 26th a collecting post was established at Fampoux, from which point the horsed ambulance wagons cleared into Athies. On this front all walking wounded made their way to the divisional collecting post in St. Nicolas, and from there were transported in lorries direct to No. 42 Casualty Clearing Station at Mingoval. At no time was there any difficulty in clearing on this front. Casualties were not heavy, the roads to the rear were comparatively good, and not congested to the same extent as on the Canadian front. From the 26th to the 29th, when the 51st (Highland) Division was transferred to the XXII Corps, the total number of wounded evacuated was 15 officers and 426 other ranks.

The 4th (British) Division, which relieved the 3rd Canadian Division on the left, continued the advance in conjunction with the 1st and 4th Canadian Divisions on the 30th of August and the 2nd and 3rd of September.

In this division all wounded were cleared to the main Arras-Cambrai road, where the advanced dressing station was located near St. Rohart Factory, and the divisional walking wounded post near Bergère. The 10th British Field Ambulance was in charge of the main dressing station for stretcher cases in the Hospice, while the 12th British Field Ambulance was in charge of the main dressing station for walking wounded in the Ecole des Jeunes Filles, both located in Arras. These dressing stations cared for any wounded, but received mostly British. When the loading post at O.24.c. on the main road was established during the afternoon of the 2nd of September, practically all wounded from the forward area on the divisional front were delivered to this point for further evacuation by trams. For the period 27th of August to the 3rd of September, the casualties of this division, while attached to the Canadian Corps, were quite heavy; 64 officers and 1,621 other ranks wounded were evacuated to casualty clearing station.

It was always with pleasure that the C.A.M.C. found itself co-operating closely with the R.A.M.C. Upon many occasions and more particularly during heavy fighting, when British divisions were under the Corps, there was noticed that friendly rivalry which calls forth the highest effort. This, however, was always accompanied by the warmest feeling of mutual respect, confidence and readiness to assist in times of stress. In the early days of the war the aim of the Canadian Medical Service in France, and especially of the field ambulances at the front, was to attain and to live up to the high standard of efficiency characteristic of the British Medical Service. For some time past, and more than ever now in 1918, did the officers and men of the C.A.M.C. feel that, in the work of clearing and evacuating wounded, they lost nothing by comparison with their fellow workers of the R.A.M.C.

CHAPTER VIII.

WORK IN THE REAR CORPS AREA, ARRAS.

Reference Map 3.

During the fighting in front of Arras, while the clearing of the forward area was carried out in much the same manner as during the Amiens fighting, with the exception that the light railway was a big factor on this front, there was a difference in the arrangements as regards main dressing stations. For the beginning of the battle each division had its own main dressing station for walking wounded, where all records were taken; on the left, for the 51st (Highland) Division, at St. Nicolas; in the centre, at Arras, for the 3rd Canadian Division; and on the right, at Achicourt, for the 2nd Canadian Division. The main dressing station for stretcher cases for the division to the north of the river Scarpe was at St. Catharines, while the one for the two Canadian divisions was located at Agnez-les-Duisans, where Nos. 10 and 4 Canadian Field Ambulances were in charge. The arrangement for these main dressing stations was more or less by divisions, and was continued after the 1st and 4th Canadian and the 4th (British) Divisions went into the line. At that time, No. 3 Field Ambulance took over part of the main dressing station for stretcher cases, while No. 12 Field Ambulance, of the 4th (British) Division, also established its own main dressing station in the Hospice. The walking wounded station, 1st Canadian Division, was now moved forward to Wancourt, and that of the 4th Canadian Division to N.12. central. The above arrangement for stretcher cases proved satisfactory, as all wounded

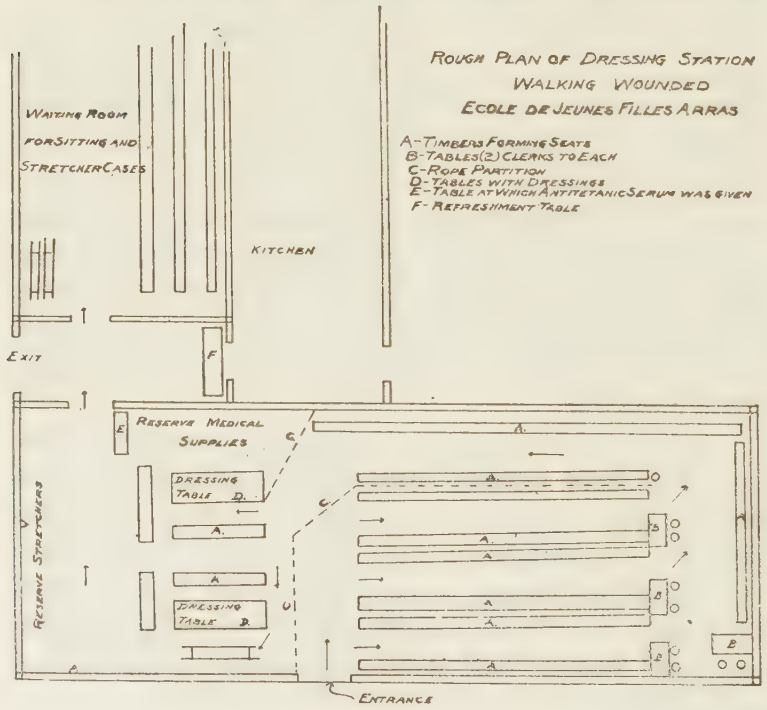
from the divisions south of the river Scarpe had, ultimately, to be taken into Arras to either one of the stations there, and consequently it was more or less certain that records would be taken. In the case of walking or slightly wounded, three main dressing stations were involved, and as there was always a possibility of men getting back on conveyances other than medical, it is a question whether one central recording place in Arras for the Corps might not have been better. The facilities for clerical work at the forward walking wounded posts were far from good, and although instructions were issued for unrecorded men to be taken to the station in Arras, it would seem that there was a possibility of a certain number of wounded reaching the casualty clearing station without the divisions concerned first being given the necessary information.

In connection with the main dressing station for stretcher cases in Arras, what might be considered a special feature was the arrangement made for the dressing and recording of German wounded. A separate room was set apart for this purpose. Among the prisoners taken there were several medical officers and a considerable number of medical orderlies, who were employed in looking after their own wounded. Besides saving valuable time to our own personnel they secured all necessary information; in previous fights this had always been difficult without the assistance of an interpreter.

At this point it might be well to give a detailed description of a main dressing station, dealing first with one treating only walking or slightly wounded, and later with one for stretcher cases. The station operated by No. 8 Field Ambulance in Arras during the first few days of this battle will, perhaps, answer the purpose, and the description may be read with reference to the diagram on the next page.

Walking Wounded M.D.S.

The Institute (Ecole des Jeunes Filles) had occupied a large block of buildings, and the remains of these were easily converted to fill the requirements of a dressing station for slightly wounded. In arranging a station where wounded, in almost all cases, were able to walk, it was most important to regulate traffic so that there would not be any intermingling of incoming and outgoing patients in the dressing room itself, and also to regulate the vehicles delivering and evacuating patients. In order to allow ambulance cars and lorries to enter by one street, and go out by another, it was necessary to clear away the remains of one of the outbuildings, which had been destroyed by shell-fire. In this way there was neither congestion nor



confusion in the surrounding grounds, and lorries and M.A.C. cars waiting to load were parked in an adjoining space off the line of traffic.

The dressing room was arranged in a room approximately 80 feet by 36 feet. Large timbers were carried in from an adjoining wrecked building to provide seating accommodation for the patients. The floor space was roped in such a manner that intermingling of the incoming and outgoing patients was impossible. On entering the side door, wounded were directed to the right, down two aisles formed by seats on either side and down the centre of the space. At the far end of these three rows of seats were three tables, at each of which two clerks worked; one to record particulars concerning the patient, and the other to make out his *Card and Envelope*, which were fastened to the coat by an orderly, who directed him along. Here he might sit down, or walk back past the ante-room into the dressing room proper, which was formed by a quadrangle of seats, the centre being occupied by tables carrying all necessary dressings. The only exit from this space led past a dressing table where anti-tetanic serum was given, and the necessary record of this made. From here the patient passed into another waiting room, provided with seats, and facing this was a refreshment booth, conducted by the divisional Y.M.C.A., where hot drinks and food were provided. From this room the patient walked outside, and was loaded into a lorry and evacuated to casualty clearing station.

A certain percentage of the cases that came in as walking or sitting were considered sufficiently serious to be made lying cases, and in anticipation of this the necessary stretchers and blankets had been provided. Three fairly large rooms had been cleared for the reception of these cases, but on this occasion only one was used.

The use of the large dressing room was impracticable at night, because of the impossibility of screening the windows, and the consequent danger from enemy night bombing machines. Therefore a series of cellars, that had been previously used as an advanced dressing station, had been cleaned out and made ready. These cellars were found quite suitable, although the space was limited. The room in which the dressings were done accommodated thirty waiting men and, in addition, there was a covered passage-way above, and also one by the exit, which provided accommodation in the case of an overflow.

At this station ten lorries had been detailed to clear to the casualty clearing station at Mingoval, a distance of perhaps thirteen miles. Each lorry carried from twenty-five to thirty patients, and although kept very busy were able to keep the dressing station cleared. Two motor ambulance cars were on duty, clearing stretcher cases to the main dressing station at Duisans. As this station was established as a divisional post, no assistance from other divisions was forthcoming. However, by virtue of the central location in Arras, many cases from the other divisions in the forward area found their way to this point, and to cope with the work the medical officers of the three divisional engineer battalions and of the divisional train were detailed for duty to replace the officers of the unit in the forward area with the bearer division. These medical officers worked in shifts of twelve hours each.

A dressing station such as this necessarily demanded much clerical work, seeing that from here all casualties had to be reported, and full returns compiled for the A.D.M.S. of the division, as well as for the Record Office at the base; in addition, divisional units had to be informed daily as to casualties. The clerical staff of No. 8 Field Ambulance was supplemented by five clerks from No. 9

Field Ambulance, all working under the senior Staff N.C.O., who detailed duties and responsibilities. Eight clerks were on duty throughout the day and two at night, with two others of the day staff interchanging during the night. As previously stated, three tables were placed in the admission room, at each of which two clerks worked, making out slips of admission and field medical cards. At the farther end of the room were two senior clerks, who were responsible for all entries and returns and for advising units as to their casualties. These clerks collected slips from time to time, and made entries in the admission and discharge book, and also compiled the returns for the base. They were also responsible for the daily wires, giving the number of casualties for the various periods of the day, as required by divisional headquarters and, in addition, the usual daily state of admissions for the twenty-four hours. Divisional units were informed of casualties by the collection and sorting out of admission slips, and the forwarding of same to the units concerned. In this dressing station there was little possibility of a wounded man, once delivered to the station, being passed through without a proper record being made and his unit receiving all particulars not later than the following morning. No. 8 Field Ambulance, during the period 26th to 29th of August, while in charge of this walking wounded station, passed through 64 officers and 2,039 other ranks—not an abnormally large number but a fairly good three days' work for the tent division of one unit.

Stretcher Case M.D.S.

The main dressing station for stretcher cases in the Hospice in Arras, in charge of No. 3 Field Ambulance, required a different arrangement from that of the station for walking wounded. In both the great aim was to pass

patients through with the least possible delay, but with stretcher cases, which were unable to help themselves, more personnel was required, as well as more floor space in the dressing room itself and in the waiting rooms. There was the same necessity for a separate entrance and exit for ambulance cars delivering and evacuating wounded, but at the Hospice there was only one road to the street. This was through a gate leading into a wide driveway, with sufficient space on either side to park cars and an inner courtyard gave facilities for turning, by circling around a central fountain. In this way congestion of traffic and intermingling of cars was prevented and no confusion occurred.

The main dressing room consisted of a large ward, in which were set up pairs of trestles; each pair, with the stretcher, forming an improvised operating table. At the entrance to the ward a clear space was reserved for the immediate unloading and storage of cases until they could be placed on the trestles. Similarly, at the exit, there was a clear space for storage of cases awaiting evacuation, thus allowing the trestles to be available for the next wounded. As the normal ambulance load consisted of four lying cases, provision was made for these to be dressed simultaneously. Therefore, a unit of four pairs of trestles will be considered, always remembering that this unit was duplicated or triplicated according to requirements. In the main room at this station there were two such units. Trestles were so spaced as to allow freedom of action to the personnel in charge of each pair. A medical officer was on duty at each dressing table thus formed, and as fast as the case was dressed it was removed to the space at the exit and other cases placed on the trestles. At times one medical officer might dress two or three cases, while another would be devoting all his attention to one case with multiple

wounds, or one requiring a difficult dressing, but the stream of wounded going through was not interrupted. A large percentage of the cases coming to a station such as this required very careful dressing, as the medical officer at the aid post or the advanced dressing station had neither the time nor the facilities for doing so, especially when the weather was wet and the patient's clothing had to be changed to combat chill and shock. In such cases *Rechauffement* methods were employed. The man while having his wounds dressed was kept warm by means of an oil stove placed under the stretcher, to which were attached blankets. These were draped to within a few inches of the floor, thus retaining the heat beneath the patient.

The personnel and duties to carry on the work of one unit of four dressing tables were as follows:—

(*a*) Each medical officer had two dressers to assist him. The dressings were brought from side tables in large enamelled basins, each basin containing an assortment of gauze, wool, bandages, adhesive tape and safety pins.

(*b*) Two bearer squads, one at the entrance and one at the exit, for loading and unloading and for shifting cases on and off the trestles.

(*c*) Two clerks placed out of the way in a corner; one to make entries in the A. & D. book, and the other to fill out the cards. These clerks remained at the table and the two clerk runners brought the details of each case. Each clerk runner served two medical officers, and noted on a scratch pad all identifying particulars from the pay book or disc; also the diagnosis from the report of the medical officer, the dose of anti-tetanic serum, morphia, etc., and as to whether the case was serious and required the red envelope to the field medical card. These slips, with all the necessary information, were then delivered to the clerks, and when the card was made out the runner was

responsible that this was fastened to the patient's jacket. In attaching the envelope care had to be taken to fix it in such a manner that those who had next to deal with the case could do so without wasting time in undoing knots or possibly in cutting the cord.[1]

The injection of anti-tetanic serum was made by a medical officer, if available; otherwise, by a senior N.C.O. There were two assistants; one to load the syringe and the other to uncover the patient's body, swab the spot with iodine, and after the injection was given mark the patient's forehead or wrist with a *T* in indelible pencil. The sterilizer and stock of serum were placed to one side. Needles were sterilized after each injection, thus necessitating the use of a large number.

The preparation of dressings took the time of one man, who was responsible for replenishing the supply for the enamelled basins. For this purpose a large table was placed at one end of the room, where gauze and wool were cut into convenient sizes and the wrapping stripped from bandages, etc.

At the Hospice good cooking facilities were available and hot drinks were always to hand. Two men were detailed to supply hot bovril, tea, coffee, or cocoa to all patients in whose cases the medical officer did not instruct otherwise.

[1] No. 9 Field Ambulance, 3rd Canadian Division, adopted a very simple and useful method of affixing the envelope to the soldier's jacket. This method had the advantage of rapidity in affixing the envelope, of closing the flap and rapidity and ease in removing the card for inspection. The method was as follows:—

1. The small lengths of cord were removed from the envelope, the ends knotted together, and laid in a pile to one side.
2. The field medical card was completed and placed in the proper envelope, and flap closed.
3. One double end of the cord was then passed through the eyelets, looped over the other end of the cord and drawn tight.
4. The flap of the tunic breast pocket was then undone, the free end loop of the cord slipped over the button and the flap buttoned.

In addition to the above, a senior N.C.O. had general supervision of the work in the station, and brought the total personnel for a unit of four pairs of trestles up to four medical officers and twenty-seven other ranks. One similar staff was available for relief, but during the first twenty-four hours all personnel worked through without rest and by that time the relieving staff was sufficient to carry on the work of the whole station.

In a separate room adjoining the main dressing room two of the senior clerks, at certain periods of the day, collected information from the clerks in the dressing room proper, and were responsible for all returns. They worked in conjunction with both units.

There was also a small room set aside and arranged for the reception and treatment of gas cases. The usual oxygen apparatus was set up and the special solutions, etc., prepared; but, during this fight there were very few cases to be specially treated for gas.

The evacuation of wounded from the main dressing stations in the Hospice was in charge of the Officer Commanding No. 8 M.A.C., who had his own cars supplemented by twenty cars from No. 12 M.A.C. and seven from No. 31 M.A.C. During the day of the 2nd the clearing went on with regularity, so that no accumulation of cases occurred; however, towards evening, and particularly after dark, motor cars took much longer to make the trip to casualty clearing station and consequently wounded accumulated so that all available storage space was occupied. At one time there were 300 stretcher cases awaiting evacuation. Although three casualty clearing stations were operating at Agnez-les-Duisans, a reasonably short distance away, the two Canadian units which were taking only stretcher cases, admitted 150 cases each. They then stopped receiving, and it became necessary for the motors to make the long trip to Ligny-

St. Flochel until such time as the Duisans group would again receive. This limit of 150 cases to a casualty clearing station was to allow a proper sorting of wounded, to do extensive dressings, and to perform operations where necessary. When the main dressing station became more or less clogged with cases, the O.C. of the convoy applied for assistance to the D.M.S., First Army, who promptly took steps to have additional cars report. However, these did not arrive until about 8 o'clock next morning, by which time most of the wounded had been evacuated in the ordinary way. For the first twenty-four hours from 6 a.m. on the 2nd of September, this main dressing station passed through 1,108 wounded, most of which were stretcher cases, and for the twenty-four hours from 6 a.m. on the 3rd, 607 wounded. Working in this station besides the tent division of No. 3 Field Ambulance, were two sections of the tent division of No. 2 Field Ambulance, one tent section of No. 1 Field Ambulance and eight regimental medical officers temporarily attached for duty from different units.

Casualties.

During the fighting from the 26th of August to the 7th of September, in the advance from Arras to the Canal du Nord, the total number of wounded evacuated to casualty clearing station by the Canadian Corps was as follows:—

——	Officers.	Other Ranks.
1st Canadian Division	113	2,410
2nd Canadian Division	124	2,627
3rd Canadian Division	95	1,979
4th Canadian Division	123	2,086
Other formations, including 51st and 4th (British) Divisions and Canadian Corps Troops	169	3,601
Prisoners of War	40	983
Grand Total	664	13,686

During this period the personnel of the C.A.M.C. was not so fortunate as in the Amiens battle, as the following table of casualties shows:—

—	Other Ranks.			
	Killed.	Wounded and Evacuated.	Wounded and at Duty.	Total.
1st Canadian Division..	6	16	.....	22
2nd Canadian Division..	1	2	2	5
3rd Canadian Division..	5	18	5	28
4th Canadian Division..	7	27	.....	34
	19	63	7	89

Grand Total..... 89

OFFICERS.

Killed—

Lieut.-Colonel H. H. Moshier, No. 11 Field Ambulance.

Wounded and Evacuated—

Capt. J. A. McKechnie, attached 47th Battalion.
Capt. H. G. Young, D.S.O., M.C., attached 49th Battalion.
Capt. S. E. Holmes, No. 12 Field Ambulance.
Capt. J. P. S. Cathcart, M.C., attached 16th Battalion.

Wounded and remaining at duty—

Lt.-Col. E. R. Selby, D.S.O., No. 8 Field Ambulance.
Major G. H. R. Gibson, D.S.O., No. 3 Field Ambulance.

CHAPTER IX.

PREPARATION FOR THE OPERATIONS FROM CANAL DU NORD TO CAMBRAI.

Reference Map 5.

By the 5th of September, the 2nd and 3rd Divisions had taken over the front from the 1st and 4th, respectively, and the divisions relieved had retired to the rear corps area to rest and refit.

The 3rd Division, on the left, was holding the line of the canal north of the main Arras-Cambrai road, to a point west of Oisy le Verger, and thence northwest, to join up with the 1st (British) Division. From this area wounded were cleared to the advanced dressing station established at the site of the collecting post on the main road near Villers lez Cagnicourt, to which point motor ambulances were now running. This station was in the remains of a factory and was repeatedly shelled, direct hits being registered on two occasions, resulting in two ambulance cars being destroyed. A deep German dugout made it possible to continue this site as the advanced dressing station from which wounded were taken by cars to the tram loading post and from there back to Arras.

On the 2nd Division front, which extended along the canal from the main road for about 4,000 yards south, wounded were evacuated through the advanced dressing station at the east end of Cagnicourt to the tram loading post on the main road and thence to Arras.

For the period from 5th to 27th of September, the whole front was comparatively quiet and the daily casualties were easily cared for. It was a time of preparation for further operations, and the holding of the line, while of course important, was a secondary consideration. The 1st and 4th Divisions were in reserve, while the two divisions in the line had their support brigades well forward, and the usual reconnaissance for new positions for medical units was carried out. The personnel of all divisions quite realized that this lull in operations was only temporary and that strenuous work would soon be the lot of all. The Canal du Nord was a barrier behind which the Germans obtained a short respite, while British troops to the west and southwest were preparing for still another drive. Although the enemy in front of the Canadian Corps on the right of the First Army, and also in front of the Third Army to the south, had been driven back many miles, the German line to the north of the Scarpe, Trinquis and Sensée rivers was maintained, with the left flank protected by these streams. This long waterfront, facing north and paralleling the main Arras-Cambrai road in places less than 6,000 yards distant, exposed the whole rear corps area to heavy shell-fire from large calibre guns and howitzers. The main road was a special target and at no time was it a very safe thoroughfare. However, the work of preparing both front and rear areas for the coming attack went on in spite of the annoyance from enemy guns and night bombing. During this period all the divisions of the Corps, and particularly the 1st Division in the Wailly-Wanquetin-Berneville area and the 4th Division in the Guémappe-St. Rohart Factory-Beaurains area, utilized the time in training and refitting. All medical units had received some reinforcements, which were whipped into the best possible shape allowed by the short time available; the transport,

both motor and horse, was overhauled; medical and surgical supplies replenished, and all personnel given an opportunity for bathing and general cleaning up. Each field ambulance was responsible for the sick of its brigade, but did not attempt to establish medical stations for the care of patients requiring longer than twenty-four to thirty-six hours. Hospital patients were either sent to the corps rest station or to casualty clearing station for evacuation.

On the 6th of September the advanced corps headquarters moved from Duisans to dugouts on the south side of the road from Neuville-Vitasse to Wancourt, while rear headquarters moved from Noyelle-Vion to Duisans.

On the 10th the D.D.M.S. of the Corps was given advance information by the general staff as to the nature of future operations, the probable date and the front for the attack, and the objectives it was hoped would be reached. No orders or instructions were issued at this time, but the proposed plan was gone over on the map and sufficient information obtained to permit of immediate action on the part of the medical service in selecting further medical posts in the forward area, lines of evacuation for wounded, and locations for medical stations farther to the rear.

For the previous fighting on this front the casualty clearing stations serving the Corps were located at Agnez-les-Duisans, Ligny-St. Flochel and on the Mingoval Road. All these locations were now considered too far back, as the line had been advanced nearly 12 miles along the main road, and the nearest casualty clearing station at Agnez-les-Duisans was over 7 miles from the original line in front of Arras. Thus the Duisans group was about 20 miles from the front of attack. Therefore, the location of casualty clearing stations to serve the Canadian Corps during the

coming operations was fully discussed with the D.M.S. of the First Army, who, at all times, was most considerate and helped in every way to meet the requirements of the fighting troops. Upon several occasions he personally looked over the ground with the D.D.M.S. of the Canadian Corps, and lent every assistance in locating units well forward. Suitable positions were not available in advance of the old front line, and as Arras was not considered safe, on account of shelling, for such large medical stations, the only alternative was to request permission from the Third Army to locate in fields in the neighbourhood of the railway at Boisleux-au-Mont. While this location was considerably south of the Canadian Corps area, and in another army, yet with well regulated road traffic there was no reason why this site could not be used, and wounded evacuated from the Canadian front without interfering with the work of the Third Army. Moreover, Boisleux-au-Mont, as a location for a casualty clearing station, had the great advantage of being on the broad gauge railway running east through Boyelles, St. Leger, Croisilles, to Quéant. This broad gauge road, as will be seen, was of the utmost importance in the evacuation of wounded, and was the deciding factor in establishing Quéant as the centre of the whole system of evacuation until Cambrai was taken.

By the 18th of September the exact site for our casualty clearing stations was still undecided, and as the time was getting on, the D.M.S., with several of his staff, the O.Cs. of two casualty clearing stations and the D.D.M.S. Canadian Corps, made a survey of the whole area from Arras south to Boisleux Station. It was finally decided to install the group for stretcher cases in the fields about $1\frac{1}{2}$ miles northwest of the station, and one casualty clearing station for walking wounded about 300 yards from the station and thus within walking distance. Once the loca-

tions of these most important units were definitely settled, the D.D.M.S. had a base from which to work in making medical arrangements for the forward area.

During the many reconnaissances the location for a main dressing station was given serious consideration. As the front of attack was to be extended on the right to just north of Mœuvres, in all probability the road Quéant-Ecoust-Croisilles would be available for evacuating wounded of the Canadian Corps. This road, with the two already in use, namely, the main Arras-Cambrai, and that from Cagnicourt, through Hendecourt, Cherisy, Guémappe, Neuville-Vitasse, to the casualty clearing station, made it difficult to locate a main dressing station that would tap all these roads and insure getting a proper record of wounded passing through. In view of the number of roads leading from the front and in order to prevent, as much as possible, multiciplicity of dressings and to deliver wounded to casualty clearing stations at the earliest possible moment, it was finally decided to do away with the main dressing station and to evacuate direct from the advanced dressing station to the casualty clearing station, where all records would be taken. This was a departure from the usual arrangement, but it worked to the entire satisfaction of all concerned. The D.D.M.S. of the Corps assumed responsibility for clearing from the advanced dressing stations, and to assist in this work was, if necessary, to call upon divisions for a certain number of motor cars to reinforce the M.A.C. It was thought that this arrangement would relieve divisions of much responsibility in their evacuation problems, and allow full concentration upon clearing the actual battlefield. It would only be possible for the D.D.M.S. to assume this extra responsibility if the broad gauge railway, which was rapidly approaching Quéant, could be used in the evacuation of wounded. At

several interviews the D.D.M.S. was assured by the Canadian Railway Construction Company responsible for the operation of this line that, barring unforeseen accidents, there would be a certain number of trains available for evacuation purposes. Later we shall see to what extent this railway assisted during the very strenuous days of battle that followed.

Although the main dressing station was being dispensed with on this occasion, as a precaution against the clogging of forward dressing stations with wounded in the event of the broad gauge railway service breaking down, a corps collecting station was established in a field near Chérisy on the road to Hendecourt. At this point a few deeply stained tents were erected for the purpose of storing all surplus medical, surgical and Red Cross supplies. Here also were parked all M.A.C. cars, and thirty-five lorries and charabancs for walking wounded. Provision was made to pitch other tents in the event of being forced to use this station for wounded, and a small hut with the floor sunk three feet in the ground was erected as a dressing room. A plank road was built, entering at one end of the field, and out by the other, upon which was parked the motor transport.

On the 20th a conference of all A.Ds.M.S. and D.A.Ds.M.S. of the Canadian Divisions, and of the 11th (British) Division, was held at the office of the D.D.M.S., when the proposed medical arrangements for the coming fight were thoroughly discussed. By this time the exact front for the attack and the corps boundaries had been fixed, and it was possible for definite arrangements to be made. The divisions taking part in the initial attack had been allotted their respective areas, and it was now the duty of each A.D.M.S. to make his own arrangements for his immediate front.

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The 1st and 4th Canadian Divisions were to make the initial attack in conjunction with the XVII Corps to the right. At the same time the XXII Corps to the left was to assist by an artillery barrage to deceive the enemy as to the extent of the attack to the north. The 1st Canadian Division was to push through and seize the village of Marquion, while the 4th Canadian Division was to attack the village of Bourlon and afterwards to seize Bourlon Wood. At this stage the 3rd Canadian Division was to pass through the right of the 4th Canadian Division and to continue the advance due east, while the 11th (British) Division was to pass through the left of the 1st Canadian Division in a northeasterly direction towards Oisy le Verger and Epinoy. The 1st and 4th Canadian Divisions were also to continue in a northeasterly and easterly direction towards the canal de l'Escaut.

On the 23rd a conference was called by the D.M.S. of the First Army, at which one of the topics for discussion was "Medical Arrangements for Future Operations." In attendance at this meeting were the D.Ds.M.S. of corps, A.Ds.M.S. and D.A.Ds.M.S. of divisions and O.Cs. of casualty clearing stations in the Army. The D.D.M.S. of the Canadian Corps was asked to explain his arrangements for the impending battle. In the course of the talk the the importance of Quéant was indicated; the proposed method of making use of the broad gauge trains for wounded was explained, and the effect that this would have on the divisional evacuation problems was pointed out.

The arrangements, as outlined, seemed to appeal to many, but there apparently were those who doubted, and the question was asked how it was hoped to use trains out of Quéant with the Germans looking down from the high ground near Bourlon Wood and village. The answer given was the only one possible; it was to the effect that by the

time the train service for wounded out of Quéant would be necessary, the Germans would not be on the Bourlon heights. It was then suggested that possibly we were over sanguine of the results of the attack. This may have been true; perhaps the extreme confidence we had in our fighting men was not justified; but this was not admitted. This illustrates the spirit that animated all ranks of the Canadian Corps more noticeably than ever during this period, and which had existed with marked intensity since the battle of Vimy Ridge. Was there not good reason for this confidence? At any rate it would seem that a claim of over confidence could hardly be sustained. The coming battle was really nothing new; some of the conditions were perhaps exceptional; the canal had to be crossed on a narrow front and the high ground covered it; the enemy was strong, alert, and determined to hold a critical position; there were undoubtedly tactical and technical difficulties with which the medical service had as yet no immediate concern, but still we had the deep-rooted conviction that what was possible to others was probable to our men. When one looks back and considers Vimy Ridge, Hill 70, Bellevue Spur, Mosselmarkt Ridge, Dodo or Rifle Wood, and Monchy le Preux, the present Bourlon Heights, and the coming snappy fight at Mount Huoy, our men may readily be excused for jokingly applying to themselves the name of *Hill Snatchers*.

If the Medical Service had faith in those who were directing operations and equally in those doing the actual fighting, it also had confidence in itself to do its part. There never seemed to be the least doubt but that the wounded would be got out, and each division entered battle with every confidence in itself and in its neighbour. We had long worked together and knew each others capabilities.

A second medical conference of the Corps was held at Corps headquarters on the 24th, and on the 25th of September the following arrangements were issued:—

MEDICAL ARRANGEMENTS—CANADIAN CORPS.

1. *Medical Stations, Etc.*—

(i) Centres for stretcher cases—

(*a*) Mercatel Group—North West of Boisleux-au-Mont—

No. 22 Casualty Clearing Station.
No. 30 Casualty Clearing Station.
No. 33 Casualty Clearing Station.

(*b*) Agnez-les-Duisans Group—

No. 23 Casualty Clearing Station.
No. 1 Canadian Casualty Clearing Station.
No. 4 Canadian Casualty Clearing Station.

(ii) Centre for Gassed cases—Mercatel Group of C.C.Ss.
No. 30 casualty Clearing Station.

(iii) Centre for Walking Wounded—Boisleux Station.
No. 1 (British) Casualty Clearing Station.

(iv) Centre for Sick, Slightly Gassed and Self-Inflicted Wounds—at Institute for the Blind, Arras.
No. 14 Canadian Field Ambulance.

(v) Corps Collecting Station—Chérisy-Hendecourt Rd. 1,000 yards S.E. of Chérisy.
No. 4 Canadian Field Ambulance.

(vi) Advanced Dressing Stations—
Villers lez Cagnicourt.
Cagnicourt.
Quéant.

(vii) Motor Ambulance Convoys—
No. 8 M.A.C. (reinforced)—Corps Collecting Station.

(viii) C.A.M.C. Supply Station at Corps Collecting Station—
No. 4 Canadian Field Ambulance, in charge.

(ix) Red Cross Advance Depot of Stores—Hospice St. Jean, Arras—
Forward Branch—Corps Collecting Station.

(x) Medical Stores—Mercatel Group of C.C.Ss.—
No. 33 Advance Depot Medical Stores.

[1] In the original medical arrangements all locations were given by co-ordinates to be read on squared maps.

2. *Scheme of Evacuation of Casualties—*

(i) A.Ds.M.S. will be responsible for the evacuation to advanced dressing stations. They will be responsible for the operation of A.D.Ss., including the loading of patients for evacuation and the traffic control at A.D.S. loading points.

At Quéant the A.D.M.S. concerned will also be responsible for transporting patients from the A.D.S. to entraining point, for the entraining of all patients, and for the traffic control at entraining point.

The D.D.M.S. will be responsible for evacuation back of the Villers lez Cagnicourt, Cagnicourt and Quéant A.D.Ss. or back of their loading points as the case may be.

(ii) Evacuation to Corps Collecting Station will be by motor ambulance, motor lorry and tramways.

Evacuations from Corps Collecting Station to C.C.Ss. will be by motor ambulance, motor lorry and tramways.

From Quéant, evacuations will also be made by broad-gauge railway-train. Entraining point, Quéant. Detraining point, Boisleux-au-Mont Station; thence patients will be transported to C.C.Ss. by motor ambulance.

(iii) Sick, slightly gassed and self-inflicted wound cases will be segregated upon arrival at, and before admission to, C.C.Ss., in order that they may be forwarded to Medical Station at Arras by motor ambulance.

Evacuation from this Station to C.C.Ss. at Agnez-les-Duisans, will be done by motor ambulance cars detailed by D.D.M.S.

3. *Scheme of Casualty Records and Returns.*

Records—

(i) Instead of A. & D. books being kept at Medical Stations in the forward area, Divisional Record Stations will be established at C.C.Ss., where records of casualties will be made, and returns rendered.

A.Ds.M.S. will be responsible for these Record Stations as follows:—

A.D.M.S., 1st Canadian Division, for Record Station at No. 22 C.C.S.

A.D.M.S., 2nd Canadian Division, for Record Station at No. 1 (British) C.C.S.

A.D.M.S., 3rd Canadian Division, for Record Station at No. 30 C.C.S.

A.D.M.S., 4th Canadian Division, for Record Station at No. 33 C.C.S.

A.D.M.S., 11th Division, for Record Station at Agnez-les-Duisans group of C.C.Ss.

(ii) The A. & D. Book Form will be used for these records. At the Record Stations conducted by A.Ds.M.S. of Canadian Divisions, all casualties admitted to the C.C.S. will be recorded whether from Canadian Troops, other troops or Prisoners-of-War.

At the Record Station conducted by the A.D.M.S., 11th Division, only casualties from Canadian Troops, 11th Division Troops, 56th Division Troops and Prisoners-of-War will be entered.

Care will be taken to ensure that no entry is made of cases that arrive at a C.C.S. and without being admitted, are diverted to another C.C.S. or to the Medical Station, Arras.

(iii) A.Ds.M.S. will cause to be also entered in their records, with full particulars, all cases that die en route to the C.C.S. and all cases of death reported to them in accordance with para. (v) below.

(iv) At those Record Stations a Field Medical Card covering the admission to the C.C.S. will be made out for each patient recorded. A.Ds.M.S. will supply cards for this purpose.

(v) In order that such cases may be traced, A.Ds.M.S. will instruct Field Ambulance in charge of A.D.Ss. and Corps Collecting Station to report to them with full particulars all cases that die at or en route to their Stations. The A.D.M.S. will cause these cases to be entered in his Divisional Record Book in accordance with para. (iii) above.

Returns—

(vi) From each Divisional Record Station there will be forwarded twice daily to reach the D.D.M.S., Canadian Corps, not later than 6.30 a.m. and 6.30 p.m., Casualty Returns as per proforma attached hereto as Appendix A.

Attached to the Return will be a nominal roll with Units of all Canadian Officers included in the numerical return.

The C.O. i/c of the Medical Station at Arras will make like returns for battle casualties admitted.

(vii) By 6 p.m. daily Divisional Record Stations will have prepared and hold for the D.D.M.S. (for Corps

Troops) and A.Ds.M.S. of Canadian Divisions, 11th Division and 56th Division, Nominal Rolls, arranged by Units, of all cases from Canadian Corps Troops, and troops of each of these Divisions that have been recorded during the 24 hours ended at 5 p.m. Separate rolls to be made for Corps Troops and each Division.

The C.O. in charge of Medical Station will prepare like nominal rolls of battle casualties, admitted from the troops indicated.

4. *Anti-Tetanus Inoculation*—

C.C.Ss. and the Medical Station, Arras, will be responsible for Anti-Tetanus Inoculation.

5. *Motor Transport Supervision*—

Motor ambulance and motor lorry transportation of casualties from A.D.Ss. and back to C.C.Ss. will be under the general supervision of the O.C., No. 8 M.A.C.—Headquarters at Corps Collecting Station.

6. *Special Details*—

Personnel—

(i) Each A.D.M.S. will provide a sufficient number of clerks to cover the records and returns required by him by para. 3.

These clerical details will report twelve hours before zero hour.

(ii) Each A.D.M.S. will reinforce the particular C.C.S. at which he conducts the Divisional Record Station.

These reinforcement details will be 3 officers and 20 other ranks.

These details will report to O.C. the C.C.S. concerned twelve hours before zero hour.

(iii) Officers for traffic control duty will be detailed to A.D.Ss. as follows, reporting twelve hours before zero hour:

To Villers Cagnicourt A.D.S.—
One R.A.M.C. officer from 33rd Field Ambulance, 11th Division.

To Cagnicourt A.D.S.—
One officer, C.A.M.C., No. 2 Canadian Field Ambulance.

To Quéant—
One officer, C.A.M.C., No. 13 Canadian Field Ambulance.

(iv) One officer, C.A.M.C., No. 10 Canadian Field Ambulance, will be detailed as Liaison Officer between the Railway Authorities at Quéant and the A.D.S. at that point in connection with train service mentioned in para. 2 (ii). He will report twelve hours before zero hour.

Transport—

(v) The D.D.M.S. will detail three motor ambulances to report at Walking Wounded Centre at zero hour for the transport of cases from the C.C.S. at that Centre and at the Mercatel Group to the Medical Station, Arras.

7. *Daily Reports of Medical Situation*—

A.Ds.M.S. of Canadian Divisions and 11th Division will send to D.D.M.S. Canadian Corps by 10 p.m. daily, a brief report of the medical situation, covering such points as positions of A.D.Ss. Bearer Posts, line of evacuation, what part of front, if any, is producing an excessive number of casualties, whether front is being cleared satisfactorily, etc., etc., and stating whether further assistance, if any, is required from the Corps.

(Sgd.) .....Colonel,
D.D.M.S.
Canadian Corps.

Canadian Corps H.Q.,
25.9.18.

DISTRIBUTION.

Copy No.

I—D.M.S. FIRST Army.
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VII—A.D.M.S. 3rd Canadian Division.
VIII—A.D.M.S. 4th Canadian Division.
IX—A.D.M.S. 11th (British) Division.
X—A.D.M.S. 56th (British) Division.
IX—Officer Commanding No. 1 C.C.S.
XII—Officer Commanding No. 22 C.C.S.
XIII—Officer Commanding No. 23 C.C.S.
XIV—Officer Commanding No. 30 C.C.S.
XV—Officer Commanding No. 33 C.C.S.
XVI—Officer Commanding No. 1 Canadian C.C.S.

XVII—Officer Commanding No. 4 Canadian C.C.S.
XVIII—Officer Commanding No. 14 Canadian Field Ambulance.
XIX—Officer Commanding No. 8 M.A.C.
XX—G. Branch Canadian Corps.
XXI—A. & Q. Branch Canadian Corps.
XXII—Officer Commanding No. 4 C.O.R.C.C.
XXIII—Liaison Officer between Medical Service and Broad Gauge Railway.
XXIV—Officer i/c. Light Railway.
XXV–XXVII—War Diary.
XXVIII–XXX—Spare Copies.

RETURN OF BATTLE CASUALTIES RECORDED AT DIVISIONAL RECORD STATION.

at.....C.C.S.

From 5.00...M.....1918 to 5.00...M.....1918

——	Officers.	Other Ranks.	Total.
1st Canadian Division Troops.....			
2nd Canadian Division Troops.....			
3rd Canadian Division Troops.....			
4th Canadian Division Troops.....			
Other Canadian Troops.....			
Total Canadian Troops.....			
11th Division Troops.....			
56th Division Troops.....			
Grand Total Troops.....			
Prisoners of War.....			

Dated.....1918 Signed.....

for A.D.M.S.....Division.

This return to be forwarded by despatch rider to D.D.M.S., Canadian Corps, to reach him not later than 6.30 a.m. and 6.30 p.m. daily.

Final Preparations

As early as the 18th of September instructions were issued for the 1st Canadian Division to move forward into the support area and on the 19th No. 1 Field Ambulance moved with the 1st Infantry Brigade to Hendecourt. The dismounted personnel of No. 2 Field Ambulance, with the 2nd Infantry Brigade, entrained on the 20th at Wanquetin en route to Boisleux-au-Mont station, from where they marched to the Mercatel-Henin area, and were located south of Beaurains. This field ambulance remained near Mercatel until the 25th, when it moved to Hendecourt, where headquarters remained until the 27th.

No. 3 Field Ambulance on the 19th accompanied the 3rd Infantry Brigade from Berneville to the Beaurains-Ronville area and located in Beaurains, where it remained until the 25th, when a move to Hendecourt was made.

The medical units of the 4th Canadian Division remained in their billets until quite late; on the 20th No. 13 Field Ambulance moved to Quéant, where the old German dressing station was shared with 1/1 Lowland Field Ambulance until the 26th, when the whole site was taken over. On the 26th Nos. 11 and 12 Field Ambulances moved forward, the former into the fields close to Quéant, the latter into the village itself.

Although the 2nd and 3rd Divisions were holding the line during this period, the headquarters of medical units were situated well to the rear with the bearer divisions in the forward area clearing the front. The headquarters of these units were as follows:—

No. 4 Field Ambulance—Southeast of Chérisy.
No. 5 Field Ambulance—Achicourt—
On 21st into Arras.
On 26th to Chérisy.
No. 6 Field Ambulance—Boulevard Crispol, Arras.

No. 8 Field Ambulance—Haucourt—On 20th to Wanquetin.
No. 9 Field Ambulance—Hospice St. Jean, Arras—On 20th to Berneville.
No. 10 Field Ambulance—Institute for the Blind, Arras—On 20th to Gouves.
No. 14 Field Ambulance—Canadian Corps Rest Station, Fresnicourt.

The date for the attack on Bourlon Wood and the advance on Cambrai was set for the morning of the 27th. On the night of the 25/26th, the 56th (London) Division of the XXII Corps took over from the 3rd Canadian Division the front north of the main road. At the same time the 11th (British) Division, which had been attached to the Canadian Corps, took over part of the left front held by the 2nd Canadian Division, which division extended its flank to just north of Mœuvres. This extension of the front of attack to the south was to allow the assaulting divisions to cross the dry portion of the canal on a front of about 2,500 yards.

For several days previous to the 27th officers of the 1st and 4th Canadian Divisions had reconnoitred their respective areas, and during the night of the 26/27th all moves and reliefs were completed and the troops in position for zero hour on the morning of the 27th. Upon relief the 2nd Canadian Division moved into corps reserve.

The medical personnel of the 1st and 4th Canadian Divisions were in close touch with their respective brigades in the forward area. No. 2 Field Ambulance took over the advanced dressing station in Cagnicourt on the 26th and bearer squads were attached to battalions. The advanced dressing station at Quéant on the 4th Canadian Division front was in charge of No. 12 Field Ambulance, which moved in on the 26th and took over from No. 13 Field Ambulance already located at this site. From both these advanced dressing stations medical personnel was sent

forward and took over the car and collecting posts on the immediate front. On the front of the 11th (British) Division the advanced dressing station in Villers Cagnicourt on the main road was shared with the 56th (London) Division to the north.

As the 3rd Canadian Division was in immediate support ready to push through on the right as soon as Bourlon Wood and the high ground had been gained, the field ambulances moved forward on the 26th, and by evening were located as follows:—

No. 8 Field Ambulance—E. of Bullecourt.
No. 9 Field Ambulance—Quéant.
No. 10 Field Ambulance—Quéant.

During the period of preparation for this battle great efforts were made to have the light railways completed as far forward as possible. The line from Wancourt to the main road east of Vis-en-Artois, which had done such good work in evacuating wounded during the previous fighting on this front, was connected up with the line along the main road to the advanced dressing station in Villers lez Cagnicourt. A branch line, leaving this main line at a point between Wancourt and Vis-en-Artois and running through Chérisy, had reached the corps collecting station on the 25th, and it was hoped that this road might be extended far enough forward to be used in evacuating from the advanced dressing stations at Cagnicourt and Quéant. A short section from Quéant forward to Inchy had also been put into working order. The broad gauge road from Boisleux-au-Mont station by the night of the 26/27th had entered Quéant and was ready for work on the morning of the 27th. With this system of railways, in addition to the several roads leading from the front, great hope was entertained for a speedy evacuation of wounded during the coming battle.

CHAPTER X.

FIGHTING AROUND CAMBRAI, INCLUDING CANAL DU NORD, BOURLON WOOD AND IWUY, SEPTEMBER 27 TO OCTOBER 11.

Reference Map 4.

1st Canadian Division.

Zero hour on the 27th of September was 5.20 a.m., when the barrage opened and the troops went forward to the attack. On the 1st Canadian Division front two infantry brigades were employed, each with one battalion—the 4th of the 1st Brigade and the 14th of the 3rd Brigade. In close support of these battalions were the 1st and 13th, which followed up immediately and continued the advance. Field ambulance bearers were in close touch with these troops, those from No. 1 Field Ambulance working with the 1st Brigade, the O.C. being responsible for the clearing while the O.C. No. 3 Field Ambulance, with the bearers of his own unit and those of No. 2 Field Ambulance attached was responsible for the clearing of the 2nd and 3rd Brigades. The O.C. No. 2 Field Ambulance was in charge of the advanced dressing station at Cagnicourt, where all divsional medical transport was parked just previous to zero hour. Stretcher bearer squads, as usual, were detailed to and went into action with each battalion, while the reserve bearers, who had rendezvoused at Cagnicourt, went forward just before zero hour to the collecting post in the sunken road at D.6.d.6.8, which later became a car loading post.

As the advance progressed No. 1 Field Ambulance bearers established a collecting post in Inchy, at E.2.c.2.6, while on the 3rd Brigade front, on the left, the regimental aid post of the 14th Battalion in Paviland Wood, W.26.c.3.5, was taken over as a collecting post. The field ambulance party going forward to take over this post found several men of their own unit lying in shell holes and open fields. Four had been killed and eight others wounded, and it became the melancholy task of the bearers of this unit to bury their comrades and care for and evacuate their own wounded. These casualties were from the details who had gone forward with the 14th Battalion and who had apparently been caught in the enemy barrage early in the morning.

Later in the morning, on the 1st Brigade front, the collecting post moved forward to W.29.c.2.6; through it the wounded from the 2nd and 3rd Battalions, which had gone through to the brigade objective, were cleared. At first, wounded from this post had to be manhandled across the canal, but about 11 a.m., when the crater in the bed of the canal was filled in, motor transport went forward and cleared to the advanced dressing station in Quéant. On the 3rd Brigade front wounded were carried across country from Paviland Wood to the loading post at D.6.d.6.8, but great difficulty was experienced in this work, due to the heavy shell-fire in the neighbourhood. A considerable number of wounded were therefore carried from Paviland Wood to the advanced dressing station at Cagnicourt.

When the 13th Battalion advanced through the 14th, the medical personnel attached went forward from Inchy along the road to Keith Wood, but owing to the heavy shelling along this road, they were forced to take shelter in some shallow dugouts located in the neighbourhood of

W.27.b.5.8. It was not until about 9 a.m. that they were able to enter the wood and clear wounded back to a collecting post at W.22.c.0.2, from which point German prisoners were employed to carry across country to Paviland Wood. At this time the shelling prevented motor ambulances from using the road forward of Inchy.

About 10 a.m. the 7th Battalion of the 2nd Brigade went forward on the right of the 13th Battalion, and the 15th Battalion of the 3rd Brigade advanced north through Marquion. The field ambulance personnel detailed to the 15th Battalion, although following within a reasonable distance of the troops, were greatly delayed by the enemy barrage, which fell immediately in rear of the battalion, and it was after noon before the regimental aid post was located. However, a considerable number of wounded were picked up in the area between Keith Wood and Marquion, and at about 2 p.m. the regimental medical officer was found in his dressing station, about 600 yards to the east of Marquion on the main road. By the afternoon a traffic bridge over the canal north of Sains-lez-Marquion was completed so that motor cars were now clearing through Buissy to the advanced dressing station, and a collecting and car post was established by field ambulance bearers at W.16.b.5.8. During the morning, on the 3rd Brigade front, all wounded had been evacuated through the post established in the sunken road near Keith Wood, but on the completion of the bridge across the canal at Sains-lez-Marquion, motor cars cleared the great bulk of wounded by this route. Through the Keith Wood post, during the 27th, some eighty stretcher cases were cleared, many by hand-carry and horsed ambulances to Inchy, where they were taken over by motors. Motor ambulances later in the day cleared this post direct to the tram loading post or through to Quéant.

No. 2 Field Ambulance bearers, working with the 2nd Infantry Brigade which went through to the final objective for the day, collected wounded to a post established at the railroad crossing on the main road at W.18.c.1.3; therefore, wounded from the 7th Battalion and later in the afternoon those from the 5th and 10th Battalions were cleared through this post, which, during the night of the 27/28th, was moved into Haynecourt. In the morning this location in Haynecourt was found to be very much exposed to both shell and machine-gun fire, so the post was moved west of the village, and installed in the sunken road at X.15.b.3.3. Even the new situation was not at all a healthy spot until the 4th Canadian Division pushed forward the line on the right flank, on the morning of the 28th.

4th Canadian Division.

The 4th Canadian Division made the attack on the right, with the 44th and 46th Battalions, while the other two battalions of the brigade, the 50th and 47th, were in close support and ready to push through. The bearers of No. 13 Field Ambulance worked with this brigade with squads detailed to each battalion, while the motor and horsed ambulances rendezvoused on the Pronville-Inchy road, at D.11.b.6.1, immediately the troops went forward. On this front the O.C. No. 12 Field Ambulance was responsible for the clearing and made his headquarters at the advanced dressing station in Quéant. He was also responsible for this dressing station.

The first wounded were cleared through a collecting post in the east end of Inchy, at E.7.a.9.6, to which point ambulance cars got through quite early in the morning, and cleared to Quéant by the Pronville road. By 10 a.m. the 11th and 12th Brigades had passed forward accompanied by their respective field ambulance bearer parties,

and at this time No. 13 Field Ambulance in charge of the collecting post in Inchy, moved forward to Quarry Wood, E.10.a. At this new post in Quarry Wood the bearers of No. 12 Field Ambulance also worked in clearing the 38th and 85th Battalions, which had continued the attack on the left of the divisional front.

Bearers of No. 11 Field Ambulance, responsible for clearing the 11th Brigade on the right, cleared their wounded during the early morning through the Inchy post. However, by 10 a.m., it was possible to push forward and establish their own collecting post east of the canal at E.9.d.2.1, on the road running north and south. Here a few wounded were attended, but by 11 a.m. a second collecting post was located in a trench at E.16.b.3.6, near the road running northeast towards Bourlon Village. This remained the collecting post for the rest of the day of the 27th, although a bearer relay post was established at E.17.b.3.6.

On this brigade front, during the early fighting on the 27th, wounded were carried by hand or conveyed in horsed ambulances to the canal at *B* bridge, E.8.d.9.1, where they were transferred to the motor ambulance cars and thence to Quéant. All day there was a steady stream of wounded passing through, but at no time was there an undue accumulation at the trans-shipping point on the canal.

Early in the afternoon the light railway from just west of Inchy was working back to the advanced dressing station at Quéant, and a tram loading post was established off the road near the small stream at E.1.c.4.2, where a considerable number of wounded from the 1st and 4th Canadian Divisions were unloaded and sent back by truck. For this purpose two trains of five trucks each were detailed for the use of wounded only, and ammunition trains, returning empty, were also used. At this tram loading

post a few hospital marquees and bell tents were erected, and provision made for attending to cases in need of immediate treatment. Hot drinks were also provided at this point.

On the 12th Brigade front, on the left, No. 12 Field Ambulance, during the first evening, established a forward collecting post at the Quarry just west of Bourlon Village at E.5.d.1.1, from which wounded were cleared by horsed and motor ambulances during the night, either to the tram loading post at Inchy or through to the Quéant advanced dressing station.

11TH (BRITISH) DIVISION.

Early in the afternoon of the 27th the first phase of the operation was over, and the attack planned for the 11th (British) and 3rd Canadian Divisions was due; but, owing to the XVII Corps on the right not having obtained all objectives, it was not considered advisable to allow the 3rd Division to advance the line and further expose the right flank. However, the 11th (British) Division on the left went in on schedule time and made good progress to the north and west, capturing both Epinoy and Oisy le Verger. The 2nd Yorks and 11th Manchester Battalions made the initial attack, closely supported by the 9th West Yorks and the 8th Northumberland Fusiliers, who pushed through to the final objective for the day.

By the time the 11th Division attacked, the bridge over the Canal du Nord north of Sains-lez-Marquion had been completed, and most of the wounded were evacuated by this route to the advanced dressing stations at Villers lez-Cagnicourt or Quéant. Those going to Villers lez Cagnicourt were sent back by ambulance or other conveyance along the main road, either to the casualty clearing station group at Boisleux-au-Mont or to the Duisans group. Later in the day, however, all wounded from this division

were evacuated to Quéant, which, by this time, had become the advanced dressing station for the whole corps, on account of the excellent service rendered by the broad gauge railway. The wounded from the right of this division were collected through the post formed by No. 2 Canadian Field Ambulance at the railway crossing on the main road at W.18.c.1.3 and from the battalions on the left to a post in Marquion, near No. 3 Canadian Field Ambulance collecting post. Towards evening a post was established at Chapel Corner, W.6.d.2.3, through which most of the wounded from the whole front were at that time cleared, although the post at the railroad crossing was used for walking wounded. These walking wounded were directed along the road to Marquion, where they were picked up by motor lorries and taken to Quéant. Advanced collecting posts were established at dusk on the left in the Bois des Puits, R.25.d.6.6, and on the right at the cross-roads at X.2.b.5.3. Both these posts were too far forward to be cleared by wheeled transport other than wheeled stretchers, and most of the wounded were carried to the main road on the right and to Chapel Corner on the left.

Operations of the 28th.

Owing to the deep penetration effected on the left front of the Corps by the 11th (British) and 1st Canadian Divisions, attempts to push forward there on the 28th were checked by flanking fire; on the right the 3rd and 4th Canadian Divisions attacked at 6 a.m. in conjunction with the XVII Corps. On the 3rd Canadian Division front it had originally been intended to attack with one brigade, with the other brigades leap-frogging as progress was made. However, at the last moment, it was found necessary to employ the 7th Brigade on the left and the 9th Brigade on the right, in order to clear out the village of Fontaine-

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Notre-Dame on the XVII Corps front, which was giving much trouble and holding up the Canadian advance. The 43rd Battalion was employed in clearing this village and thus secured the right flank for the further progress made during the day. The R.C.R. and 52nd, the other two battalions in the initial attack, had a heavy task at the Marcoing trench line, the brigade objectives being finally obtained by the P.P.C.L.I. and 49th Battalion on the left and the 58th Battalion on the right.

The Officer Commanding No. 10 Field Ambulance was placed in charge of clearing the whole front, and had all field ambulance bearers at his disposal. Those of No. 10 Field Ambulance were detailed to the 7th Brigade and those of No. 9 to the 9th Brigade, while No. 8 Field Ambuance was in reserve, to be employed where particularly needed, and also to be available when the 8th Brigade went forward. In the early hours of the morning of the 28th sufficient personnel of the tent division of No. 10 Field Ambulance was sent to Bourlon village, where a dressing station was established in a large building at E.12.b.6.6. and where the O.C. the unit made his headquarters. A section of the tent division of No. 8 Field Ambulance worked at the tram loading post at E.1.c.4.2 and cleared many wounded of all divisions on the 28th and succeeding days. As the troops advanced a collecting post was formed in the sunken road at F.3.b.8.0, from which, at first, stretcher cases were carried to a car post in the extreme east end of the village at F.7.a.6.5. Towards evening this post was moved forward to F.8.a.5.5, and from there horsed ambulance wagons cleared to the original post in the village.

On the right the bearers of No. 9 Field Ambulance early in the day cleared the wounded of the 52nd and 58th Battalions to the post of No. 10 Field Ambulance at

F.7.a.6.5, while many of the 43rd Battalion were carried through the Bois de Bourlon into the dressing station in the village. Later in the day, as the advance continued on the right, all wounded were carried to the collecting post established by No. 10 Field Ambulance on the left and thence out by horsed and motor ambulances.

Clearing of the wounded from this divisional front was continued late into the night, during the early part of which No. 10 Field Ambulance had a collecting post at Raillencourt, as the P.P.C.L.I. had pushed across the main road to the area well north of Ste. Olle. By this time wounded were being evacuated via the Raillencourt-Bourlon road, motor cars running part way up from Bourlon and taking over from the horsed ambulances, which were now going to the outskirts of Raillencourt.

The 4th Canadian Division, on the 28th, employed the 10th Brigade on a two battalion front, the 50th and 47th going in first, and the 46th and 44th continuing the advance later in the day. No. 13 Field Ambulance bearers were clearing, and during the early part of the day made use of the medical posts established the evening before. Thus wounded were evacuated by horsed ambulance and wheeled stretcher from the forward area to the Quarry just west of Bourlon village, where they were taken over by motor car and lorry. In the afternoon, as the battalions had pushed northeast of the main road, a clearing post was established in Lilac Farm, X.20.d.9.1, from which point motor ambulances and lorries cleared towards evening, taking the wounded out by way of the main road to just east of Marquion, then south to Inchy. On this front during the day casualties were quite heavy, but by the early part of the night the wounded were all out. Several casualties occurred among the C.A.M.C. personnel; one ambulance wagon was destroyed and the driver killed by shell-fire.

On the left flank, although the 11th British and the 1st Canadian Divisions had heavy casualties, very little, if any, progress was made. No change occurred in medical posts and although the whole area was under continuous shell-fire, causing many casualties among the bearers, the wounded were evacuated regularly so that no congestion occurred. During this day the collecting post of No. 2 Field Ambulance in Haynecourt got a direct hit, resulting in five casualties, including the Sergeant-Major of the unit.

Continued Operations.

By determined efforts on the 29th, 30th of September and 1st of October, the 3rd and 4th Canadian Divisions on the right pushed forward the line to the Canal de l'Escaut immediately in front of Cambrai and partly around the city to the north, where the canal bends towards the east. During this period the Germans, realizing the importance of checking our advance on this part of the front, offered very strong resistance by bringing up fresh divisions and employing special machine gun battalions. The fighting was of the fiercest character with many attacks and counter-attacks by both sides without much change in the line on the left.

On the 29th the 3rd Division employed battalions of all three brigades, advancing about 1,500 yards. The 4th Division, also, made some headway, using battalions of two brigades and advancing the line about 1,000 yards on the right, but on the left could not get forward as the 1st Division on that flank was held up.

The 3rd and 4th Divisions again went forward on the 30th, while on the 1st of October all three Canadian Divisions gained from 1,000 to 2,000 yards.

For this fighting wounded from all divisions were evacuated to Quéant, which by this time was the collecting

centre for the whole corps, and although no records were taken the Quéant station had attained the importance of a corps main dressing station. On all fronts the advanced dressing stations and collecting posts were pushed forward to conform to the advance.

On the 3rd Division front No. 8 Field Ambulance went in on the 29th and cleared the 8th Infantry Brigade, but a certain number of the bearers of the other two units were withdrawn for a much needed rest. All wounded were cleared to the post at Raillencourt by bearers and wheeled stretchers until evening, when this post was moved forward on the main road to F.5.b.7.4. Motors cleared this new post during the night, taking the route Raillencourt, Bourlon village to Inchy.

On the 4th Division front, on the 29th, Lilac Farm was still the advanced dressing station through which wounded of the 12th Brigade were cleared. However, in the afternoon, personnel of No. 11 Field Ambulance, who were in support with the 11th Brigade, went forward and located a collecting post northeast of Sailly on the Sailly-Cantimpré road, at X.29.b.1.9. During the afternoon the bearers of this unit assisted those of No. 12 Field Ambulance, and were therefore in the forward positions, ready for the operations of the 11th Brigade next day.

This post at Cantimpré, on the 30th, cleared all wounded of the 4th Division as well as many from the right of the 1st Division. German prisoners and horsed ambulance wagons carried back to Lilac Farm, while walkers made their way to the same place. Towards evening motor cars, which had been working all day from Lilac Farm back to Inchy and Quéant, were sent forward to Cantimpré, thus saving much time and making speedy evacuation possible. During this day, as many wounded of the 1st Division passed through the post at Lilac Farm, the O.C. No. 1 Field

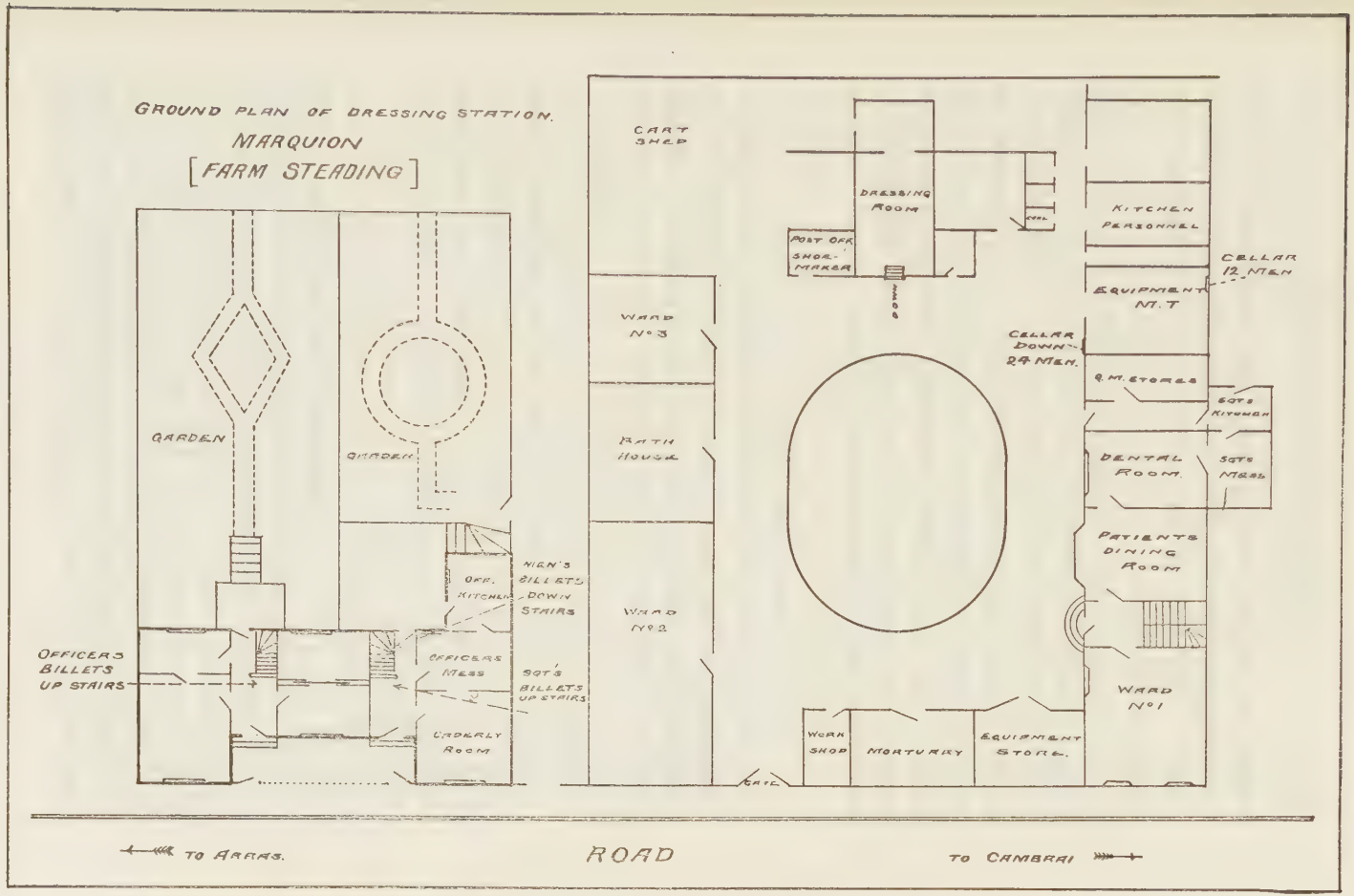
Ambulance detailed a number of his cars to assist in the evacuation from this point. Again on the 1st of October the O.C. No. 3 Field Ambulance, finding that many of the 13th Battalion were coming through the post at Cantimpré, detailed some of his personnel to work at this station.

On the 1st Division front, on the evening of the 29th, the 1st Brigade relieved the 2nd, and the O.C. No. 1 Field Ambulance took over the clearing. The fighting was very fierce and no progress was made. No. 1 Field Ambulance established an advanced dressing station at X.19.b.4.2, to which walkers were directed and which was to be the transshipping point from horsed to motor ambulances. As has been noted, many of these 1st Division wounded found their way to Lilac Farm instead of to their own post.

During the 29/30th of September and 1st of October, the post in Haynecourt was the clearing point for the divisional front, but it was not until the 1st of October that motor cars were able to push forward this far.

By the 1st of October the first phase of the second battle of Cambrai was over. The 1st and 4th Canadian Divisions had been fighting since the morning of the 27th, had suffered many casualties and were now due for relief. This was accomplished by the 2nd Canadian Division moving from reserve and taking over the centre of the line. On the extreme right the 3rd Division continued, but on a one brigade front. At the same time the 11th (British) Division extended its right, taking over from the 2nd Infantry Brigade of the 1st Division.

For the relief of medical units Nos. 4 and 5 Field Ambulances moved forward and located headquarters in Sains-lez-Marquion, W.26.d.5.3, and just east of Marquion, W.17.c.2.8, respectively. The headquarters of No. 6 Field Ambulance remained in Arras. Bearers of these two advanced units took over the medical post at Cantimpré,


GROUND PLAN OF DRESSING STATION.
MARQUION
[FARM STEADING]
CART SHED
DRESSING ROOM
POST OFF
SHOE-MAKER
KITCHEN
PERSONNEL
CELLAR
12 MEN
EQUIPMENT
NT.T
CELLAR
DOWN
24 MEN.
Q.M. STORES
SGTS KITCHEN
SGTS MESS
DENTAL ROOM.
PATIENTS
DINING
ROOM
WARD
No 1
WARD
No 3
BATH
HOUSE
WARD
No 2
GARDEN
GARDEN
OFF.
KITCHEN
NCO'S
BILLETS
DOWN
STAIRS
OFFICERS
MESS
SGT'S
BILLETS
UP STAIRS
OFFICERS
BILLETS
UP STAIRS
ORDERLY
ROOM
WORK
SHOP
MORTUARY
EQUIPMENT
STORE.
GATE
TO ARRAS.
ROAD
TO CAMBRAI

where, up to this time, dugouts had been used, but this post was now moved into a house in the northeast end of Sailly. The medical post of the 3rd Division, near Ste. Olle was also taken over.

Upon relief and moving into corps reserve the medical units of the 1st Division were disposed in and around Inchy, while those of the 4th Division were in the neighbourhood of Quéant, and during the period 2nd to 7th of October all units were in close touch with their respective brigades. On the 7th the 4th Division was moved into First Army reserve in the Arras area, medical units being billeted in the neighbourhood of Ecoivres and Duisans.

Work in the Rear Corps Area.

On the 22nd of September casualty clearing stations started the move from Pernes and Ligny-St. Flochel to the Boisleux-Mercatel area, and, by the afternoon of the 26th were in position and ready for work. A casualty clearing station required forty-five lorries to move all equipment and stores. The distance on this occasion was 20 miles, and at the end an open field as the hospital site. Great credit is due to the officers commanding these units for the businesslike manner in which this move was completed and the rapidity and skill with which the different stations were installed.

No. 8 Motor Ambulance Convoy, reinforced by thirty cars of No. 1 Motor Ambulance Convoy, on the evening of the 26th parked at the corps collecting station on the Cherisy Road. Here also were thirty-five lorries for walking wounded. Early in the morning of the 27th, in addition to the cars already at forward posts, five ambulance cars and three lorries were sent to each of the advanced dressing stations at Villers lez Cagnicourt and Cagnicourt, while ten cars and six lorries were detailed to Quéant. Other vehicles

were to go forward at regular intervals and keep close touch with the front, in order that further help could be sent as required.

During the night of 26/27th a fair number of wounded were passed through, the result of enemy shelling in the assembly area. By 6.30 a.m. the first battle casualties were received at the advanced dressing stations and from that time on there was a continuous stream. At 9 a.m., at the Cagnicourt station, there were some thirty stretcher cases on the side of the road and no cars available. A despatch rider was immediately sent to the corps collecting station with a request for more convoy cars, and in the meantime these cases were loaded into lorries and transferred to Quéant. It was soon apparent that the short run for divisional cars would allow of a very rapid clearing and result in a great influx of wounded to the forward dressing stations. Soon all M.A.C. cars were on the road, but again traffic congestion greatly interfered with their quick return.

At Quéant wounded arrived early in great numbers. Shortly after zero hour, while a smoke screen temporarily prevented the enemy's observation from Bourlon Wood, a broad gauge train of twelve box cars reported and took out forty stretcher cases and some two hundred walkers. During the morning two other trains, in addition to the M.A.C. cars and lorries, kept the dressing station clear. Such was the success of the broad gauge train evacuation during this morning that it was decided to make Quéant the advanced dressing station for the whole front. Wounded from Villers and Cagnicourt were therefore cleared to this point. About noon No. 2 Field Ambulance personnel, who had been working in Cagnicourt, reported to Quéant for duty, leaving sufficient dressers in their original station to care for any wounded who might still be taken there.

Casualties continued to pour into Quéant; the M.A.C. cars and lorries continued to evacuate; but it was an unequal contest, this short run for divisional cars and the long run for the M.A.C. After 11 a.m. no broad gauge trains reported and Quéant filled up. It was an anxious time of watching and waiting for cars and lorries that did not return. The D.M.S. of the First Army was wired for more cars, but these did not arrive until late at night—twenty-five from No. 22 M.A.C. The D.D.M.S. Canadian Corps personally interviewed the railway people and was assured that two hospital trains were on the way. The D.A.D.M.S. of the 4th Canadian Division was detailed to find these trains and was successful in finally impressing upon the Traffic Control Officer the importance of getting them through at the earliest possible monent. The D.A.D.M.S. of the Corps was busy rounding up all M.A.C. cars and lorries at Chérisy and in the back area. By 4.30 p.m., there were 1,000 wounded at Quéant and more arriving with each ambulance car from the front, and it looked as though the experience of the main dressing station at the White Chateau at Amiens was to be repeated unless the situation was relieved. Night was fast approaching and there was no adequate protection for such a large number of wounded at Quéant.

Much to the relief of the officers in charge of this dressing station, and to none more than the D.D.M.S. of the Corps, between 4.30 and 5 p.m. three trains arrived. Upon the first were evacuated all seriously wounded and about two hundred walkers, while the other two were loaded in quick succession. About this time, also, arrived twenty M.A.C. cars and fifteen lorries. Officers and men alike carried stretchers and by 6 o'clock all wounded were on the way to casualty clearing station and Quéant was clear and ready for the night's casualties. During the night

27/28th three trains reported and with the M.A.C. cars evacuation was carried on without interruption.

At the Quéant dressing station, which was in charge of No. 12 Field Ambulance, personnel of the tent divisions of Nos. 13, 9 and later No. 2 Field Ambulance were on duty. Emergency dressings were done, hot drinks and food provided, and records taken of slightly wounded returned to duty and of deaths occurring. All other records were taken and anti-tetanic serum given at the casualty clearing stations. Quéant was the great clearing house of this battle.

At the Boisleux-Mercatel group of casualty clearing stations excellent arrangements were made. At times congestion did occur, but with the arrival of hospital trains from the base at more or less regular intervals, the situation was always well in hand. No. 1 British Casualty Clearing Station had a particularly good layout and cared for all walking wounded. By a system of wire fencing, incoming and outgoing patients were kept apart and those awaiting evacuation not allowed to wander from the hospital compound. On several occasions there were over 1,000 of these slightly wounded at this station, but there was no confusion either upon the arrival of trains from the front or in loading trains for the base.

Nos. 22, 30 and 33 Casualty Clearing Stations took only stretcher cases, each admitting 150 in turn, when the next 150 went to the Duisans group. This arrangement again was for the purpose of allowing of proper sorting of cases and for careful surgery. Loading parties of fifty men at the Boisleux railway station and a like party at the casualty clearing stations were provided by the Canadian Corps. These men were untiring at very tedious work, and allowed medical personnel to be available for more technical duties. Thirty M.A.C. cars provided by the

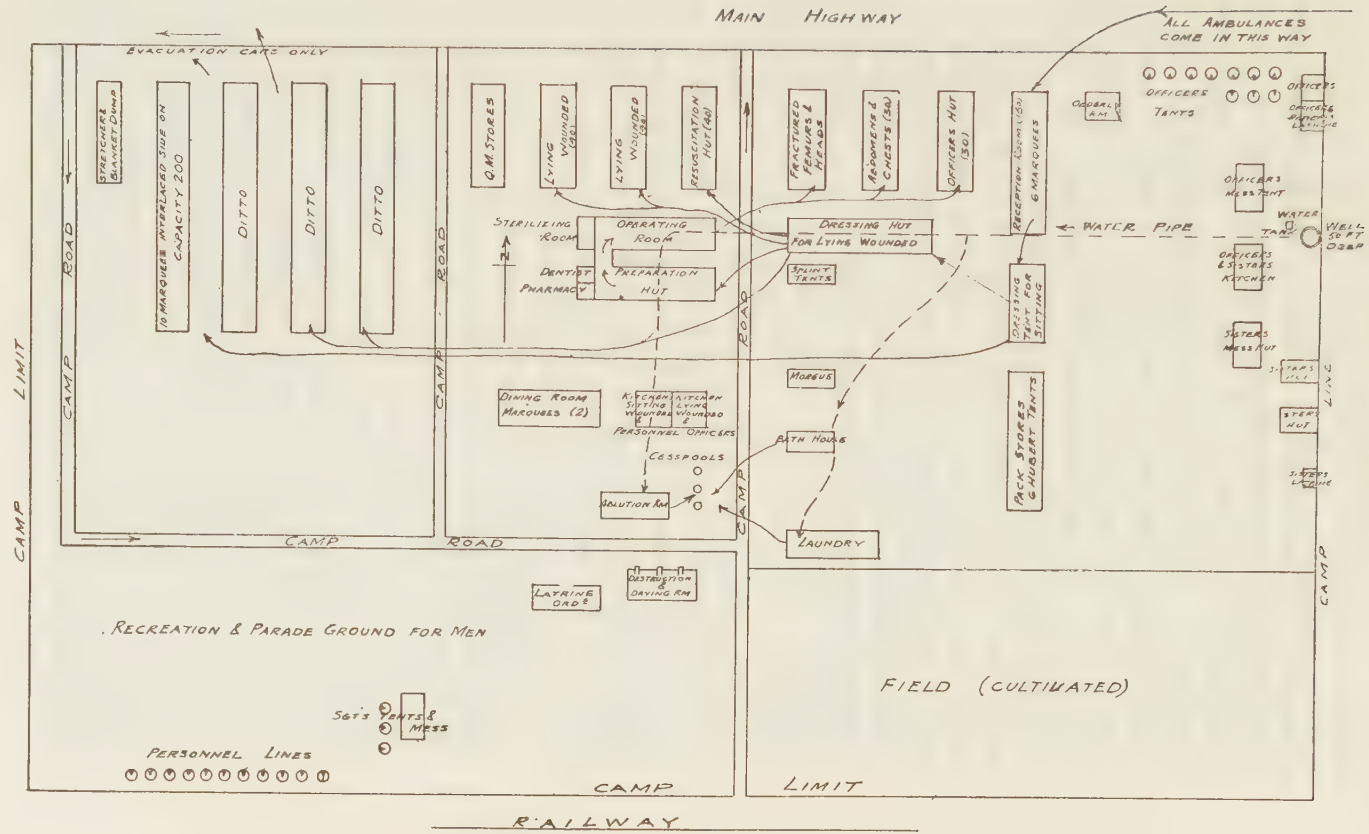
D.M.S. from the Army convoy were on duty transporting wounded from Boisleux to the casualty clearing stations and again to the regular hospital trains for the base. Three cars of No. 14 Canadian Field Ambulance delivered gassed, self-inflicted and corps rest station cases to the medical centre in Arras.

Both groups of casualty clearing stations rendered good service and met all requirements during this period of strenuous fighting. The Boisleux-Mercatel group served the Canadian Corps only, and by reason of its advanced position received a large percentage of the wounded. The Duisans group cared for the remainder and also received from the VIII Corps in line to the north, although under the administration of the Canadian Corps.

It was in the First Army only that casualty clearing stations were detailed to army corps for administration and thus came under the jurisdiction of the D.Ds.M.S. The arrangement undoubtedly had advantages, and as far as the Canadian Corps was concerned, no confusion resulted from this dual control. The D.M.S. of the army never lost touch with his casualty clearing stations and at all times made the necessary arrangements for hospital trains to clear wounded to the base, and also insured the provision of extra personnel, such as operating teams from base hospitals or from other casualty clearing stations on less busy fronts. But once casualty clearing stations became corps troops the D.D.M.S. could make his visits with authority and his suggestions carried weight. Moreover, corps headquarters could more easily be approached for assistance in establishing these units by furnishing extra transport, engineer services, working parties and material of all sorts.

A D.D.M.S. was much concerned in the arrangements made for the reception of his wounded from the front.

DIAGRAM OF A CANADIAN CASUALTY CLEARING STATION WORKING CLOSE TO THE FRONT, DURING HEAVY FIGHTING.



This was always important. In quiet times regular visits were made to casualty clearing stations and close touch kept with the routine work, always with an eye to the changes and extensions that would be necessary for heavy fighting. In preparing for battle there was the closest co-operation between the D.M.S. and D.D.M.S. and many conferences were held which included the officers commanding the casualty clearing stations concerned. But the more successful the operation, the more did the forward area absorb the attention of the D.D.M.S., and the further the advance the less opportunity he had to visit the casualty clearing stations. It was then that the D.M.S. of the army resumed closer control over these units, or, if necessary, made other dispositions more in keeping with the general situation. Neither in quiet times nor during an offensive did a D.D.M.S. take upon himself to order a change in the location of a casualty clearing station. Upon occasion, particularly during the allied advance in 1918, he did suggest changes in the locations of these units, but the orders for the actual moves were always issued by the army upon the recommendation of the D.M.S.

During the 28th the broad gauge train service was fairly regular. Fifty M.A.C. cars were employed on the run to casualty clearing stations, while the remainder, and a certain number of lorries assisted in clearing divisional advanced posts, particularly Inchy, Bourlon, and later Lilac Farm. By this disposal of transport the immediate battle area was quickly cleared and, excepting during the afternoon of the 27th, Quéant was also free from undue congestion. At 2 p.m. on the 27th, M.A.C. headquarters was moved to Quéant, where the cars and workshops were located in a field adjacent to the dressing station. Medical surgical and Red Cross supplies and reserve stretchers were also moved to Quéant, which now became the supply, as

well as the evacuating centre. Hospital tents were erected and, with a Y.M.C.A. tent 30 feet by 90 feet, gave shelter to the wounded.

From the 29th of September to the 2nd of October, some thousands of casualties passed through Quéant, but at no time was there any great difficulty in clearing. Trains ran on a more or less regular schedule, materially assisting the medical transport to keep the situation under control.

During this battle the light railway was not used to the same extent as in the Arras fighting, although the line from Inchy to Quéant rendered valuable service and by the 2nd of October had carried 1,150 stretcher cases and 550 walkers. Upon return trips, trains, both on the light railway and broad gauge, carried supplies of dressings, blankets and stretchers.

The Canadian Red Cross representative, as in all previous battles, was most energetic in his efforts to supply comforts to the wounded. He established his stores well forward and delivered daily supplies to the advanced dressing stations, to the station at Quéant and to the casualty clearing stations at Boisleux and Duisans.

The experience of the Canadian medical services during the fighting since the 8th of August, where rapid advances were repeatedly made, was that it was almost impossible to maintain sufficient M.A.C. cars and lorries on the road to prevent the congestion of wounded somewhere in the front area. It was only where an auxiliary service, such as the light or broad gauge railway, was available that all men were delivered to casualty clearing stations within a reasonable time. At Amiens, where there was no auxiliary service, congestion of wounded at one station or another occurred during the first forty-eight hours of battle; from Arras to the Canal du Nord the 60 cm. or narrow gauge railway gave good service and rapid evacuation resulted;

during this fighting for Cambrai undoubtedly the broad gauge railway was a most important factor, and its presence made possible the evacuation of over 15,000 wounded from the front to casualty clearing stations in six days.

In these battles, once the attack had been launched and the advance pressed until the tactical situation allowed of a general move forward on the part of reserve and second line troops, all roads leading to the front were literally crammed with vehicles of all kinds for many miles. Guns, tanks, engineer supplies, ammunition wagons, supply columns, besides infantry, cavalry and motor machine gun units, caused a congestion of traffic through which the M.A.C. cars and lorries carrying lightly wounded had a most difficult task to thread their way. It is little wonder that the return of the medical transport was uncertain and often much delayed. Even in the battle of the Canal du Nord, where casualty clearing stations were brought well forward and where the motor ambulance convoy was familiar with the area and reinforced by cars from other convoys, there was congestion of wounded at the Quéant dressing station during the first twelve hours. Such a condition had been considered a possibility, and was provided against had the congestion proved more than temporary. The corps collecting station on the Chérisy road was available, where wounded could at least have been placed under canvas, given food, and had more extensive dressings done if necessary.

Fortunately it was possible to adhere to the original method of evacuation laid down for this battle. The D.D.M.S., as prearranged, might have called in a certain number of the divisional motor ambulances for the evacuation from Quéant to casualty clearing stations. This procedure was not desirable, if at all to be avoided. As long as there were wounded to be brought in from the front it

was felt that the divisional cars were best employed forward of Quéant, even if it was to increase the congestion there, thus placing the entire onus of the situation on the Corps and the D.D.M.S. Wounded men were infinitely better off at the dressing station in Quéant, where nourishing food was available, sedatives and stimulants administered, dressings inspected and wounds redressed where necessary, than they would have been on the battlefield or in the advanced medical posts. A.Ds.M.S. of divisions which fought on the 27th and 28th definitely stated that their immediate fronts were never before so quickly cleared of such large numbers of wounded. This was made possible, as previously stated, by the corps assuming the responsibility of clearing from the advanced dressing stations. If a corps main dressing station had been established, even as far back as the corps collecting station on the Chérisy road, divisional cars would have required two to four hours to make this extra run and divisional evacuations would have been correspondingly delayed.

During the several hours in the middle of the day of the 27th, when everything was coming into Quéant and very little going out, when stretcher cases crowded all available space and the walking wounded made the dressing station compound look like the mid-way at a National Exhibition, the D.D.M.S. of the Corps still retained faith in his medical arrangements. Although the broad gauge trains had failed to appear for a period of approximately six hours and Quéant gave promise of being the black smudge on the medical map of this battle, there was still the promise of good Canadian officers of the railway construction companies, that everything possible would be done to expedite the evacuation of wounded. At the various interviews between the D.D.M.S. and the O.C. of these companies the keen interest and enthusiasm of the C.R.T.

in this their first opportunity to share in the clearing of wounded for the Canadian Corps was inspiring, gratifying, and above all reassuring. A promise was given that, as long as the railroad was in working order, the evacuation of wounded would have due consideration with other branches of the service, and that at any rate the medical service would not be let down. We have seen how this promise was fulfilled, and Quéant may well be recorded as the greatest clearing post for wounded in the history of the Canadian Corps.

The arrangements for this battle and the good work of the medical personnel were appreciated by First Army Headquarters, as evidenced by the following letter:—

D.M.S. First Army, No. V.5.

D.D.M.S. Canadian Corps.

I wish to acknowledge with grateful thanks to all concerned:

(1) The very rapid and efficient manner in which the medical preparations for the Second Battle of Cambrai were carried out.

(2) The devotion, endurance, and skill which were ungrudgingly exhibited by all ranks of the Medical Services, in the collection, transportation, treatment and evacuation of the large numbers of wounded dealt with. In particular the tender devotion and gentle ministry to the severely wounded and shocked were beyond all praise.

I have had much satisfaction in bringing this to the notice of the Army Commander.

(Sgd.) H. N. THOMPSON, Major-General,
D.M.S. First Army.

Advanced Headquarters,
4–10–18.

Casualties.

Casualties among C.A.M.C. personnel from the 27th of September to the 2nd of October were as follows:—

Killed.	Wounded and Evacuated.	Wounded and at Duty.	Total.
Officers.			
Capt. H. A. Culham. " A. Ross.	Capt. H. M. Cameron. " H. G. Young, D.S.O., M.C. " A. M. Blakely. " W. B. Morgan. " F. G. Banting, M.C. " D. G. Turnbull, M.C. " R. Goulden.	Lt.-Col. A. S. Donaldson, D.S.O. Capt. A. H. Veitch.	11
Other Ranks.			
1st Canadian Division..... 8	33	16	57
2nd Canadian Division[1].... 0	2	1	3
3rd Canadian Division..... 3	19	21	43
4th Canadian Division..... 8	49	4	61
Corps Troops... 0	1	0	1
Total all Ranks. 21	111	44	176

Grand Total..... 176

The following table shows the work of the Broad-gauge Railway:—

Date.	Number of trains.	Walking wounded.	Stretcher cases.	Total.
September 27....	7	1,545	659	2,204
" 28....	4	720	283	1,003
" 29....	5	965	485	1,450
" 30....	6	1,055	429	1,484
October 1.....	5	1,275	450	1,725
" 2.....	1	85	41	126
	28	5,645	2,347	7,992

[1] 2nd Canadian Division was not in the line.

Broad Gauge Railway.

This broad gauge evacuation out of Quéant might be considered briefly, in order to avoid the possibility of misunderstanding as to its nature and to differentiate between these trains and the regular hospital trains running between casualty clearing stations and the base. As the railroad forward of the Boisleux station had but recently been put into operation, owing to the advance of the fighting line, there were neither pullman cars nor day coaches available, and the only trucks in general use were the French *Fourgons de Marchandise* or box cars. There were, however, a certain number of the ordinary flat cars, upon which wounded were evacuated, even stretcher cases as an emergency measure.

It had not been possible beforehand to prepare box cars, by means of racks, for stretcher cases, and during the first few days stretchers were placed on the floor, leaving sufficient space for a few slightly wounded, who were thus available to render aid to their more helpless companions. During the latter period of this fighting and when Quéant became the recognized railhead for the clearing of wounded, a goodly number of cars had racks installed, by means of which the number of cases carried in each car was considerably increased. When there were seriously wounded men for evacuation, they were all placed in one car to which were detailed medical orderlies. At times medical officers also accompanied trains to attend to particular cases under constant observation. In trucks, where only walkers or slightly wounded were loaded, the men made themselves as comfortable as possible on the floor. This may not appeal to us as a modern arrangement for transporting wounded, but it is safe to say that men who made the trip from Quéant to Boisleux in these improvised ambulance trains had a more comfortable

journey than if evacuated by motor ambulance, lorry, or char-a-banc over the much congested and uneven country roads.

Just previous to the 27th of September two trains of eight trucks each were set aside for the evacuation of wounded. The schedule upon which these were to be operated allowed half an hour for the run each way and one hour at each end for loading and unloading. It was very seldom possible to make the trip in the time allowed, although ambulance trains loaded with wounded took precedence over all other traffic, except the forward movement of troops and ammunition. The pre-battle arrangements provided that, after delivering wounded to the Boisleux station, trains were to remain there until word was received from the railway traffic officer at Quéant. This officer was to be kept informed by the medical officer detailed for this purpose as to the requirements of the dressing station. It was intended that, as soon as there was a sufficient number of wounded at Quéant, the train would be ordered up by telephone. Such was the demand for railway evacuation by the medical service during the first few days, that it was necessary to issue instructions for the two ambulance trains to be returned to the front immediately after each trip. Even the two improvised trains, at times, had their carrying capacity increased by having extra box cars attached at the Quéant yard. Supply trains, upon the return journey, were also used for wounded.

The following statements show evacuations made by the medical service of the Canadian Corps during the fighting between the canal du Nord and Cambrai:—

SUMMARY OF CASUALTIES EVACUATED TO CASUALTY CLEARING STATIONS FROM SEPTEMBER 27, 1918, TO OCTOBER 4, 1918.

Date.	1st Canadian Division.			2nd Canadian Division.			3rd Canadian Division.			4th Canadian Division.			Canadian Corps Troops.			11th Division (attached).			Total by days.
	Officers	Other Ranks	Total.	Officers	Other Ranks	Total	Officers	Other Ranks	Total	Officers	Other Ranks	Total	Officers.	Other Ranks	Total	Officers	Other Ranks	Total	
Sept. 27....	12	285	297	3	36	39	2	23	25	24	482	506	2	41	43	–	16	16	926
" 28....	64	1,164	1,228	7	64	71	4	167	171	46	1,083	1,129	7	66	73	15	363	378	3,050
" 29....	17	312	329	1	19	20	32	606	638	27	484	511	3	39	42	2	109	111	1,651
" 30....	16	224	240	2	19	21	33	1,080	1,113	37	819	856	3	45	48	5	126	131	2,409
Oct. 1....	7	145	152	3	63	66	31	465	496	30	657	687	4	31	35	5	99	104	1,540
" 2....	31	642	673	16	251	267	13	594	607	7	224	231	1	40	41	13	406	419	2,238
" 3....	2	66	68	5	139	144	1	74	75	3	38	41	–	25	25	8	98	106	459
" 4....	1	25	26	–	65	65	3	45	48	1	20	21	–	35	35	2	67	69	264
Total...	150	2,863	3,013	37	656	693	119	3,054	3,173	175	3,807	3,982	20	322	342	50	1,284	1,334	12,537

Grand Total..... 12,537

CANADIAN WOUNDED EVACUATED BY DAYS.

Date.	Officers.	Other Ranks.	Total.
September 27	43	867	910
" 28	128	2,544	2,672
" 29	80	1,460	1,540
" 30	91	2,187	2,278
October 1	75	1,361	1,436
" 2	68	1,751	1,819
" 3	11	352	363
" 4	5	190	195
Totals	501	10,702	11,203

Grand Total 11,203

PRISONERS OF WAR, WOUNDED, EVACUATED BY DAYS.

Date.	Officers.	Other Ranks.	Total.
September 27	11	120	131
" 28	41	665	706
" 29	5	121	126
" 30	1	87	88
October 1	2	53	55
" 2	3	225	228
" 3	2	21	23
" 4	0	0	0
Totals	65	1,292	1,357

Grand Total 1,357

EVACUATED WOUNDED.

——	Officers.	Other Ranks.	Total.
Canadians	501	10,702	11,203
British (11th Division)	50	1,284	1,334
Other British Troops (not included in large table)	45	1,413	1,458
Prisoners of War (not included in large table)	65	1,292	1,357
Total	661	14,691	15,352

Grand Total 15,352

Continued Operations by the 2nd and 3rd Divisions.

By 6 p.m. on the 4th of October, the Quéant medical centre became the corps main dressing station, where all records were taken, and the field ambulance personnel in charge of the record sections at the casualty clearing stations returned to their units. No. 12 Field Ambulance continued in charge until the 6th, when No. 9 Field Ambulance of the 3rd Division took over. All three divisions in the forward area evacuated through Quéant, while the 4th Division in Army reserve cleared sick to Duisans. During this period the Quéant dressing station was shelled on two occasions. Throughout the early part of this battle the dressing station itself escaped the attention of the long range gun which had been shelling the station yard about 300 yards to the East, but on the 9th of October, while the ambulance train was loading on the switch, about a dozen large shells fell in the adjoining fields. No direct hits were made and the closest shell was about twenty yards from one of the huts, causing a few slight casualties among the medical personnel. However, a considerable number of wounded were admitted from reserve troops billeted in the village near the dressing station, one shell accounting for twenty casualties.

On the 9th, at 1.30 a.m., the 2nd and 3rd Divisions and the 11th (British) Division on the left attacked and met with little resistance. The 3rd Division pushed through Cambrai, while the 2nd Division, employing the 5th and 6th Infantry Brigades, took Escadœuvres, Ramillies and Blécourt.

For this fighting the 3rd Division cleared wounded through the old collecting post at F.5.b.7.4, which had become the advanced dressing station. Casualties were not heavy and, later in the day, a collecting post was

established in Neuville St. Remy, A.3.b.5.5, while the O.C. of No. 10 Field Ambulance made his headquarters in the old chocolate factory in Ste. Olle.

No. 5 Field Ambulance was in charge of clearing the 2nd Division front and the respective bearer parties were working with the 5th and 6th Brigades. At midnight, 8/9th, a collecting post was established in Sancourt, which was badly shelled and bombed, causing several casualties among field ambulance personnel. About noon on the 9th the bearers of No. 6 Field Ambulance collected wounded into Escadœuvres, where a large convent gave good cover and provided excellent accommodation. This site on the 10th was taken over by the O.C. No. 5 Field Ambulance as an advanced dressing station.

Soon after mid-day on the 9th the 3rd Division was squeezed out of the line by the XVII Corps to the south and by the 2nd Canadian Division advancing in a south-easterly direction. The 3rd Division then moved into reserve in the Quéant-Inchy area. On the 10th a further advance was made, and again on the 11th, by which time the 49th (West Riding) Division was attached to the Corps. During the attack on the 11th the collecting post for the 2nd Division was just west of Iwuy, and through it most of the wounded of the two divisions were cleared. The strong resistance encountered on this day resulted in heavy casualties; these were mostly passed through the advanced dressing station at Escadœuvres. At this time a slight dislocation in evacuation occurred, and some 300 cases were at the advanced dressing station during the night of 11/12th.

At 5 p.m., on the night of the 11th, the Canadian and XXII Corps exchanged fronts, and the 2nd Canadian Division, 49th (West Riding) and 51st (Highland) Divisions came under the latter corps; while the 1st and 3rd Canadian,

11th (British) and 56th (London) Divisions were under the Canadian Corps. The D.D.M.S. Canadian Corps was therefore responsible, after 5 p.m. on the 11th, for the new front extending from Palluel to the Scarpe river, where the 1st Canadian Division had taken over on the night of the 7/8th from the 4th (British) Division. The D.D.M.S. of the XXII Corps called at Canadian Corps headquarters at 6 p.m. on the 11th and was given all information regarding his new front, which included the fact that the two divisions in the line had requested help, and that all available ambulance cars of the 3rd Canadian Division had been sent up to assist the 49th Division, whose field ambulances had not all arrived in the forward area when the division went into the line.

At 7.30 p.m. the 49th Division again wired for help, and at 8.30 a wire was also received from the 2nd Canadian Division, stating that there were 250 stretcher cases at Escadœuvres. All available cars of No. 8 M.A.C. and a few of the XXII Corps convoy, which had reported to Quéant, were sent forward. Again, about 10 p.m., the A.D.M.S. 2nd Canadian Division wired for assistance and the D.D.M.S. Canadian Corps went forward to investigate. At Escadœuvres conditions were found to be greatly improved, some eighty stretcher cases awaiting evacuation, and motor ambulances getting through fairly regularly. After midnight the traffic congestion on the main road was much less, and by 3.30 a.m. all wounded were out. During the night the broad gauge train service out of Quéant was quite regular and greatly assisted in evacuating over 2,400 wounded in twenty-four hours from the morning of the 11th.

On the night of the 11/12th the troops of the 2nd Canadian Division in the line east of the Denain-Cambrai railway were relieved and the whole front, from the railway

to the Scarpe river, came under the Canadian Corps, which was now facing north with divisional fronts as follows:—

2nd Canadian Division—Iwuy-Denain-railway north of Iwuy to Canal de l'Escaut at Estrun.
11th (British) Division—from Estrun to Aubencheul-au-Bac (exclusive)
56th (London) Division—Aubencheul-au-Bac to Palluel.
1st Canadian Division—from Palluel (exclusive) to the Scarpe river.

On the 12th the 5th Infantry Brigade, 2nd Division, in conjunction with the 49th (West Riding) Division, again attacked to the north of Iwuy; but little headway was made and many casualties occurred. Canadian field ambulances were particularly unfortunate during this day. No. 6 lost Captain J. G. MacNeil, M.C., killed, and Captain A. A. Parker, mortally wounded; while three officers, including the O.C. of No. 5 Field Ambulance, were wounded and evacuated.[2] The O.C. No. 5 Field Ambulance, accompanied by his officers, was making the rounds of the front and had called at No. 6 Field Ambulance collecting post near Iwuy, to give instructions to the officers there—MacNeil and Parker—when a shell burst, causing in all eleven casualties. Three other ranks were so badly hit that they died shortly after arriving at the main dressing station, Quéant.

During the period 6th to 12th of October, as a result of the advance, it was felt that casualty clearing stations were very far to the rear, and it was only the train service out of Quéant that made clearing possible, by allowing M.A.C. cars to be used in the forward area. On several occasions representations were made to the D.M.S. First

[2] Lt.-Col. D. P. Kappelle, D.S.O.; Major J. F. Burgess, O.B.E.; Captain and Qmr. F. Clarke.

Army that a casualty clearing station should be moved to the neighbourhood of Quéant. The D.M.S. and D.D.M.S. of the Corps looked over the Quéant area as well as that just west of Cambrai, to which it was hoped the broad gauge railway would soon be running. It was finally decided to locate in the fields near Bois de Bouche, at V.22.a.&c. and No. 2 British Casualty Clearing Station began moving on the 12th, closely followed by No. 57. No. 2 Casualty Clearing Station opened for wounded on the 18th of October. At this time the corps main dressing station was shared with the XXII Corps as a railhead clearing station, while the divisions in the line established divisional main dressing stations.

Canadian Corps Rest Station.

No. 14 Field Ambulance, in charge of the corps rest station at Fresnicourt now over 28 miles from the front, was instructed to hand over the site to the VIII Corps, and a new rest station was established in the Ecole Normale Arras, on the 14th. Fresnicourt had been occupied by Canadian field ambulances in turn since the fall of 1916, when the Corps moved up from the Somme, and it was with feelings of regret that this medical site was given up. During the operations in the Vimy sector in 1917, and even while the Corps was away at Passchendaele in the autumn, and again during the Amiens fighting in 1918, Fresnicourt remained the Canadian Corps rest station.

The station consisted of a small chateau which served as an officers' mess and provided a few officers' wards; these and ten large wooden huts and a number of smaller metal huts, afforded accommodation for 30 officers and 700 other ranks. There was a good water supply and the sanitary arrangements, which included an *Orr Disinfector*, were well laid out. All minor medical and surgical con-

ditions were treated, including mustard gas, skin conditions—such as scabies, impetigo—abscesses and boils of varying sizes, etc. An eye, ear, nose and throat clinic was in charge of a specialist, who did particularly good work, averaging some thirty cases a day. The Officer Commanding the rest station feels free to assert that although the majority of cases admitted were infested with lice, after spending twelve hours in the admission hut and having the necessary treatment of baths and fumigation, not one single case of lice was discovered among the patients and, to the best of his knowledge, not a single patient was discharged to duty suffering from vermin.

The average length of stay at rest station was two weeks, although some cases were detained and treated for as long as one month. When a patient recovered he was sent to a convalescent camp, which consisted of two wooden huts, also in Fresnicourt, and which had accommodation for 100 men. Here convalescents were given physical training and graduated exercises, from four days to a week, before being discharged to duty. This scheme worked well and was under the personal supervision of a medical officer who had previously been an officer in the infantry. For three months, from the 11th of July to the 11th of October, 1918, there were some 4,000 cases treated at the corps rest station, as follows:—

Scabies—175; Impetigo—87; Gas—592; Miscellaneous (Medical and Surgical)—3,146.

Every effort was made to provide amusement. One of the wooden huts was converted into a theatre, accommodating 400 men; a pit was made for the orchestra and a lighting system installed; the stage was large enough to accommodate the scenery of any troupe showing in France, and many of the concert parties in the neighbourhood gave free shows for the patients.

CHAPTER XI.

THE PURSUIT TO VALENCIENNES, BATTLE OF MONT HOUY AND ADVANCE TO MONS.

Maps 5 and 6.

During the period that the 1st Canadian Division was under the XXII Corps, several attempts were made to cross the Sensée and Trinquis rivers to test the resisting power of the enemy. At this time wounded were cleared through an advanced dressing station near Boiry, for the left brigade, and for the right through the advanced dressing station near Dury, to a main dressing station at the Hospice St. Jean, Arras. For these operations the light railway was again called into use, and one train daily cleared any accumulation of wounded, while motor ambulances made regular trips into Arras.

On the 11th of October the enemy was reported to be falling back, with the 1st Division troops in close pursuit. By the night, 11/12th, our troops had occupied Hamel-Estrees, Noyelles and Arleux, and field ambulances were instructed to be ready to move forward on short notice. This was the beginning of the rapid retirement that produced increasing difficulties in evacuation to casualty clearing stations. The one consolation was that the Germans were fighting only rear guard actions, and consequently casualties were not heavy. The casualty clearing stations were still at Boisleux and Duisans, the Bois de Bouche group having not yet opened for work. It was necessary for field ambulances to keep in touch with the fighting troops

and collect wounded to shelter somewhere, trusting to getting them into clearing stations later.

On the 12th No. 2 Field Ambulance had an advanced dressing station in Tortequenne, in an old German hospital, and a collecting post in Estrées. The advanced dressing station of No. 3 Field Ambulance was in Noyelle, and, on the night of the 12/13th, the field ambulance site at St. Rohart Factory was taken over as the main dressing station, in charge of No. 2 Field Ambulance. On the 13th No. 3 Field Ambulance, hitherto in charge of the main dressing station in Arras, moved forward headquarters and transport to Boiry, leaving one section to care for the sick in hospital and to act as a divisional rest station. No. 1 Field Ambulance headquarters was now located in Dury, and No. 2 at St. Rohart Factory.

On the night of the 12/13th, the 2nd Canadian Division took over the 11th (British) Division front, and on the nights 14/15th and 15/16th, the 56th (London) Division was relieved by the 4th Canadian Division, thus placing three Canadian divisions in the line, with the 3rd Division in support in the Quéant-Inchy area. The medical arrangements for the 2nd and 4th Divisions were as follows:—

2nd Division—

Car Post and A.D.S. right sector, Thun-Leveque.
Car Post and A.D.S. left sector, Bantigny.
M.D.S. taken over from 34th British Field Ambulance, Haynecourt, and afterwards moved to Neuville St. Remy, on the 15th October.

4th Division—

A.D.S. Epinoy; Sauchy-Lestrée.
M.D.S. Villers lez Cagnicourt, and Marquion.

From the 12th until the 17th, the 1st Canadian Division and the troops of the VIII Corps to the north were held up by the Sensée canal. At this time the remain-

der of the Canadian Corps front was also at a standstill. On the 17th, however, the 1st Division was able to cross the canal and make considerable headway; the 4th Division also pushed forward.

The 3rd Division, still in support, was using Quéant as the evacuation centre, to this place also were cleared sick and wounded from the right divisions in the line; those of the 1st Division went into Arras and thence to Duisans. On the 12th the Quéant dressing station was handed over to the XXII Corps, but personnel of No. 9 Field Ambulance, 3rd Division, continued on duty until the 19th, to care for Canadian wounded.

On the 18th all three Canadian divisions made good progress, particularly the 1st and 4th, where a maximum advance of nine thousand yards was made. On the left of the 1st Division front, the advanced dressing station was moved forward to Ferin and later to Dechy. On the right the advanced dressing station which, on the 17th, was pushed up to Estrées, was again advanced to Gœulzin, and later in the day to Lewarde. At this time the main dressing station was still at St. Rohart Factory, but, on the night of the 18/19th, was moved into Cantin.

The advanced dressing station of the 4th Division, which on the 17th was in Aubencheul-au-Bac, was moved forward to Bugnicourt on the 18th, and again to Auberchicourt on the 19th; the main dressing station was then in Bugnicourt.

At this time the 2nd Division was clearing its wounded to the main dressing station at Neuville St. Remy with the advanced dressing station at Paillencourt. On the 19th the few casualties which occurred were picked up from the bearer posts by motor ambulances and evacuated direct to the main dressing station, which had been moved to Paillencourt. By the evening of the 19th the 2nd Division

was out of the line, the 1st and 4th Divisions having reached Denain on the right and to just west of the Bois des Eclusettes on the left.

During the advance on the 19th field ambulance bearers of the 1st and 4th Divisions, keeping in close touch with their brigades, established collecting posts in rear of the troops, with more permanent advanced dressing stations in the villages. The advanced dressing station of No. 3 Field Ambulance moved from Lewarde to Somain, with a car post in Hornaing, the Lewarde station being taken over by No. 2 Field Ambulance as a main dressing station on the morning of the 20th. No. 1 Field Ambulance established its advanced dressing station on the left in Rieulay early on the 19th, and the same night established a collecting and car post in Wandignies-Hamage.

By the evening of the 19th the 4th Division advanced dressing station was in Abscon, and early in the morning of the 20th was moved forward to Escaudain, while the main dressing station was moved to a German hospital site in Auberchicourt.

By the 21st the front line on the right had been pushed well up to the Canal de l'Escaut at Trith St. Legers, while on the left the 1st Division had pushed through the Forêt de Vicoigne. On the left No. 1 Field Ambulance moved the advanced dressing station to Fme. d'Hiverchies a mile east of Wandignies-Hamage on the 20th, and again at night into Cataine. The advanced dressing station of No. 3 Field Ambulance at Hornaing, on the morning of the 20th, moved 2,000 yards northeast on the road to Hasnon; on the 21st to the railway station north of Wallers, and again during the afternoon of the 21st to Aremberg. On the 4th Division left front on the 21st the advanced dressing station was in Haveluy, while on the right it had been moved into Denain, with a collecting post in Rouvignies.

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The headquarters and transport sections of medical units of the two divisions in the line were always in touch with their bearer personnel serving the troops, as will be seen by the following moves:—

No. 1 Field Ambulance—On the 18th, from Dury to Dechy; on the 19th, to Montigny; on the 20th, to Hamage.

No. 2 Field Ambulance—On the 18th, from St. Rohart Factory to Cantin; on the 20th, to Lewarde

No. 3 Field Ambulance—On the 18th, from Boiry to Lewarde; on the 19th, to Somain; at night, 19/20th, to Hornaing.

No. 11 Field Ambulance—On 18th, from Ecourt St. Quentin to Bugnicourt; on 19th, to Villers-au-Tertre; on 20th, to Escaudain; on 21st, to Haveluy.

No. 12 Field Ambulance—On 19th, from Rumaincourt to Aubencheul-au-Bac; on 20th to Monchicourt; on 21st, to Auberchicourt.

No. 13 Field Ambulance—On 19th, from Villers lez Cagnicourt to Sauchy-Lestrée; on 21st, to Auberchicourt.

No. 14 Field Ambulance—On 22nd moved to Auberchicourt and opened a corps rest station in large cinema building.

In some cases the transport section was with the headquarters of the unit, in others it was one short march to the rear.

During the period of this advance from the Sensée canal, from the 17th to the 21st of October, great difficulty was experienced in evacuating wounded to the casualty clearing stations. Fortunately fighting was not heavy, for had casualties not been comparatively light the task would have been impossible. German engineers had been very thorough in their work of demolition, all bridges, culverts and road crossings being destroyed. Although two casualty clearing stations were located at Bois de Bouche, one being in operation on the 18th and the second shortly afterwards, those serving the Canadian Corps were still at Duisans and Boisleux.

Upon instructions from army headquarters, the Bois de Bouche group was reserved for the XXII Corps, which was expecting heavy casualties from an attack planned for the 20th of October. This attack, however, was not necessary, the enemy having fallen back, but the instructions to casualty clearing stations were not cancelled and wounded of the Canadian Corps, for a short period, were refused admission at Bois de Bouche, thus necessitating another long journey of 20 miles further to the rear. Considerable dissatisfaction arose over the long haul of 40 miles for Canadian wounded before surgical intervention was available, but this condition of affairs was quickly remedied by the Army placing the clearing stations at Bois de Bouche at the disposal of the Corps. Even this arrangement was not entirely satisfactory as Canadians were fighting far to the north and east, and it was felt that a casualty clearing station should be pushed forward to Auberchicourt or Somain, through which towns a railway ran, although on account of the canal bridge at Douai being down, it had not as yet been put into operation. The D.M.S. First Army was urged to establish an advanced surgical centre in front of railhead, the location of the main dressing station of the 4th Canadian Division, in Auberchicourt, being recommended as suitable. This site was finally used when two surgical teams, consisting of 5 medical officers, 9 nursing sisters and 9 other ranks, from No. 1 Canadian Casualty Clearing Station at Duisans, with the necessary equipment, were moved in on the 22nd. A very complete hospital of 100 beds was therefore available within a short distance of the front and did good service during the fighting of the 4th Division at Mont Houy on the 1st of November, when wounded were delivered to an operating theatre within three hours of being hit.

To add to the troubles of this time, the motor ambulance cars of all divisions were showing signs of the hard usage they had received since the 1st of August, prior to the battle of Amiens. Breakdowns were frequent, and as no facilities for repairs were available at the front, great delay was occasioned on this account. While our troops were fighting just west of Valenciennes, it was necessary for a disabled car to be sent to a mechanical transport company near Arras, a distance of over 60 kilometres, and if unable to proceed under its own power, the delay was all the greater.

This unsatisfactory repair arrangement would appear to have been the result of previous reorganization, whereby the motor ambulance workshops, originally divisional units, became part of the mechanical transport companies under the administration of the Corps. In the early days of the war, the 1st and 2nd Canadian Divisions each had a motor ambulance workshop as a divisional unit under the A.D.M.S. These were located in the forward area and always available for emergency work. In March, 1916, these workshops were absorbed by the divisional supply columns, and likewise those of the 3rd and 4th Divisions upon arrival in France, so that while still in divisional areas, the control was taken out of the hands of the medical authorities, as it would appear, for the insufficient reason that highly skilled mechanics should not be under the authority of medical officers. During stationary warfare the evils of this arrangement were not seriously felt, but in May, 1918, just before the activities of this year began, a further centralization was brought about and four mechanical transport companies were formed, all under the administration of Corps Headquarters. As a consequence, during the strenuous times of hard fighting and rapid advances, the repair shops for motor ambulances were always hope-

lessly out of reach. As an instance, on the 1st Division front, on the 20th and 21st of October, ambulance cars were working in front of Cataine under most adverse conditions, and over all but impassable roads, and yet the nearest means of repair was with the mechanical transport company at Achicourt, by the shortest route 40 miles distant. The mechanical transport companies ultimately moved forward.

In the rapid advance during the last weeks of the war, in addition to the transport difficulties already enumerated, the drivers of motor and horsed ambulances clearing immediately behind the troops encountered many obstructions, due to being the first conveyances over the roads. Medical personnel and willing civilians made passable many stretches of road, but from lack of knowledge and proper direction, this repair work was but poorly done and soon gave way. The A.D.M.S. of the 1st Division was of the opinion that engineer personnel should have been attached to field ambulances clearing the front, in order that technical advice and supervision might have been given to such labour as was available. Canadian engineers during this period accomplished wonders in repairing bridges and blow-outs in the roads, and particularly in keeping open the main arteries of communication to the rear; but neither time nor labour was available for the repair of the secondary roads and tracks over which our transport had to pass. Consequently, the difficulties encountered in the immediate front were very real to those responsible for the evacuation of wounded and had to be met on the spot.

During the advance to Valenciennes, many thousands of French civilians were received into the Canadian lines. The scenes presented by these poor people, overjoyed at their deliverance after four years of German domination, will live long in the memory of those who were privileged

to witness them. Particularly was this the case in Somain (6,000) and Denain (12,000) where the streets were bedecked with the French tri-colour and the populace showed great enthusiasm and emotion in their welcome to Canadian troops, in whose faces was found reflection of merriment and good cheer as they passed through. At this time the transport difficulties, already great, were considerably increased by the Corps being called upon to feed some 70,000 of these civilians. Before the supplies necessary for this extra ration strength could be brought up the Canadian Red Cross, through its Corps representative, did valuable work, and was the means by which the first nourishing food for many thousands of old people and children was made available. Several lorry loads of bovril, canned milk and cream, soups, canned chicken, biscuits, etc., were rushed up and supply depots were established in the larger towns, from which the smaller villages in the surrounding country were supplied. The Red Cross motor car and lorries were to be seen delivering these supplies in the most advanced areas often under shell and machine-gun fire.

Canadian field ambulances of divisions in the line at this time were probably the most hard-worked units in the Corps, not excepting the Engineers and Army Service Corps. Early in the year, by the re-organization of the British Army, the division was reduced from 12 to 9 infantry battalions. In the Canadian Corps this reduction did not take place, but on the contrary the division was increased,[1] each field company of engineers being converted into an engineer battalion, and with the machine gunners, numbering 16 battalions. Moreover, all infantry battalions were allowed 100 men surplus to establishment. From this it will be seen that our field ambulances, although not increased in personnel or transport, were called upon to

[1] For Canadian establishments see Appendix IV.

collect sick and wounded from, and attend to the medical wants of, many more troops than in a corresponding British formation. It is true the Canadian Corps had an additional field ambulance, the 14th, but this was in charge of the corps rest station. Again there were some 18,000 corps troops, many of whom were located in the rear area and for these the extra field ambulance was responsible.

The medical service also was called upon to give assistance to numerous sick and wounded civilians, who were badly in need of help. Hospitals were established in Auberchicourt, Somain and Denain, where the more needy were admitted, while in smaller places special dressing stations were reserved for the civil population only. As very few local medical men and practically no medical and surgical supplies were available, and as our units were still advancing, many of the more serious cases were evacuated to Arras, where hospital accommodation had been prepared by the French authorities. A considerable quantity of medical and surgical supplies was left with civilian doctors wherever present.

This period of active fighting and rapid advances had been a busy time for the quartermasters of all field ambulances. It required special effort on their part as, in addition to the ordinary duties of providing for the personnel, there had been an uncertain and ever-fluctuating number of sick and wounded to be cared for. None were allowed to go hungry.

FIELD AMBULANCE QUARTERMASTER.

The duties of the field ambulance quartermaster, always an important officer of the unit, might here be considered, outlining briefly his work in quiet times and again during heavy fighting. In Canadian field ambulances, with few exceptions, the quartermaster was also the transport officer, and in this dual capacity the responsibilities

were such that men were picked because of their peculiar qualifications. The smooth running of a unit might easily be impaired by an indifferent quartermaster. These officers in our ambulances had had much experience, were well trained in their duties, and none were reported inefficient.

During a quiet period when a division was holding the line the quartermaster's work appeared to be a matter of routine, but at all times rigid supervision of every detail was maintained by his subordinate staff. To insure good service close touch was kept with the officers of the divisional train company supplying the unit. Rations of food and forage as well as supplies of gasoline and oils were demanded for the whole strength and were for delivery on the third day. One day's rations was with the unit for consumption on the day after it was received, and one day's ration was on the divisional train wagon detailed to the field ambulance, this in addition to the standard iron ration. Such a supply was not considered sufficient by most quartermasters, who generally worked up an extra two days' rations as a precaution against unforeseen circumstances. Even during quiet times unexpected activity occurred and comparatively large numbers of wounded passed through the dressing stations. It was upon such occasions that the reserve supply was drawn upon to tide over the emergency until extra rations were obtained. The number of rations drawn by a unit was adjusted at the end of each month to agree with the total strength shown on parade states.

During active operations exact accounting for equipment, stores and rations is an impossibility, but during quiet periods in the late war general administration was carried on in much the same manner as in a regular station in peace time, and every effort was made to check up all issues. This a Canadian field ambulance discovered very shortly after its arrival in France. Early in 1916 while on

duty in the Ypres salient a lunch counter was set up at the advanced dressing station in the old mill on the Menin road. Here substantial sandwiches and hot coffee were served to the men passing to and from the trenches. It was the time of infantry working parties, and each morning just before daybreak many men were fed on their way back to billets. This continued for a period of two weeks when, on the monthly returns being checked up by the divisional supply officer, an explanation was demanded. The field ambulance, of course, was hundreds of rations overdrawn. These could not be recovered and so were written off, as the men fed could hardly be considered hospital patients and the ration allowance per man did not provide for this extra meal. The Menin Mill free lunch counter closed forthwith.

Rations for the field ambulance personnel were apportioned as a routine, to the main dressing station, to the transport lines and to the advanced dressing station. This latter was the distributing point for the collecting posts further forward, where only one or two stretcher squads were on duty. Supplies were sent up in sand bags, each labelled as to destination and contents. Petrol tins, previously burned out, were used for chlorinated water and accompanied the rations; a reserve supply in the same containers was stored in all forward posts. In addition each man in the front area carried his water bottle, which he refilled from the field ambulance water-cart pushed as far forward as the situation permitted. Two days' supplies for each post were sent forward at one time; the meat was not cooked, as was customary during battle, but was cut into steaks or chops convenient for cooking on primus stoves. The number of rations for wounded passing through was based on the daily casualties in the section of the line held and in ordinary times that number re-

mained fairly constant. The quartermaster kept himself informed as to requirements at the front by periodical visits to the different posts.

While the ordinary ration issued was ample for the men of all units, patients in hospital often required and received many extras, such as canned goods, biscuits, alcoholic beverages, etc. These were drawn from Imperial supply depots, where the officers in charge were most considerate and obliging; an indent properly authorized by the A.D.M.S. was never refused. The Canadian Red Cross also provided many extras and the representative at the Corps was always ready and anxious to meet demands. From this source were received canned goods, biscuits, chocolates, games, sporting goods, gramophones, primus stoves, etc.; also many dressings, pyjamas and socks.

Ordnance equipment and clothing were drawn on indent from the Senior Ordnance Officer of the division. Demands varied considerably according to whether the unit was clearing the line, in rest, or in charge of a rest station. Ordinarily the field ambulance equipment was quite sufficient to enable the unit to take charge of all but the largest stations; for the latter the additional equipment necessary was taken over as barrack stores. All field ambulances carried much more equipment than was allowed by regulation, and on a move the motor ambulance cars were called into service and often several trips were necessary. It was impossible to transport all stores in the general service wagons, and upon such occasions the addition of a light motor lorry to the transport section would have been most useful. During most of the war the field ambulance was not a mobile unit and only became so when its excess baggage was discarded and its surplus stores handed in; this was the outcome of stationary warfare.

The supply of clothing and boots for the men of his unit often gave the quartermaster much worry. It was not an easy task to satisfy all, particularly in a unit of so small an establishment, and it was only by keeping in personal touch with the rank and file and by judicious promises of a new outfit before going on leave, that the supply was made to last the regulation time and indents kept down. The men invariably went on leave in good and clean uniforms.

Changes of clothing, socks, underwear and shirts, were obtained from the divisional baths at the time of bathing, and therefore no difficulty arose over washing for the unit. Clothes kept for use in rest stations and dressing stations were sent periodically to the divisional bath house and exchange made, while soiled linen from hospital wards was washed under divisional arrangement by women employed locally for the purpose. Blankets for personnel and patients were regularly put through the disinfestor.

After a gas attack all clothing and equipment taken from patients was first treated at the main dressing station by spreading on the ground and spraying with hypo solution and afterwards hung on lines for a few days. This clothing was then bagged and sent to ordnance stores for shipment to the base for final cleaning.

The collection and disposal of clothing and equipment from dressing stations was very important, and transport delivering rations was used for this purpose. At the main dressing station, during continued fighting, the accumulation of all material was very great and disposal was necessary from time to time. Articles of personal equipment were sorted into piles which were thus ready for removal to ordnance stores at the first opportunity.

When patients died in dressing stations their personal effects were collected and an inventory made in a special

army book, a copy was enclosed in a parcel, the whole sealed and sent, by registered mail, to General Headquarters, Canadian Section, 3rd Echelon. The bodies were removed to a mortuary tent provided for the purpose and were sewn in canvas, the green identity disk being left around the neck. A tag was affixed to each for identification purposes preparatory to the bodies being taken to the cemetery as arranged with the Graves Officer or the unit concerned.

After three or four weeks spent in the advanced posts and the consequent rough usage of the transport, clothing and equipment, etc., the first duty of the quartermaster was to ascertain, by inspection, all requirements, such as parts of wagons, wheels, tires, harness, water-cart fittings, clothing, boots, personal equipment, etc.; indents for all deficiencies were immediately forwarded.

During battle the quartermaster of a field ambulance, like other officers of the unit, was on duty twenty-four hours of the day, and perhaps for several days in succession. The system used in quiet times applied during the period of greater activity, although the manifold and extended demands called for increased intensity of effort. According to the magnitude of the operations planned and the number of troops to be employed, casualties could be closely estimated and supplies of all kinds secured beforehand: medical and surgical from the advanced depot of medical stores; extra rations from the divisional supply officer; stretchers and blankets from ordnance; medical comforts and extras from the special supply depots and the Canadian Red Cross. To insure sufficient food for wounded in medical stations the supply officer withheld a certain percentage of the rations on indent from battalions going into action. These were held in reserve for the field ambulance clearing the front and were delivered immediately on

demand. In order to facilitate the distribution of rations in the forward area during heavy fighting the quartermaster of the unit in charge of clearing was made responsible for feeding the bearers attached from other units. If the headquarters of the units concerned were nearby, rations were delivered to the quartermaster in charge, to be forwarded to the different posts, otherwise the attached bearers were temporarily taken on the strength of the unit responsible for the front, and rations drawn accordingly.

It has been said that the evacuation of wounded is a matter of transport. The efficiency of a field ambulance is surely most dependent upon the efficiency of its transport section, which must be ever ready for continued heavy work. The stretcher bearers never failed to get wounded off the battlefield, but their further evacuation to stations in the rear was, at times, the cause of much anxiety on the part of those in medical charge. If the mechanical and horse-drawn vehicles are not in good working order, and if those in charge are not capable, then difficulties otherwise avoidable will make themselves felt and a serious loss of efficiency, prestige and pride will result.

Mont Houy Operations.

On the early morning of the 22nd, the 3rd Division, which had been following in rear, relieved the 1st Division and continued the advance on the 22nd and 23rd to the canal, north and east of Valenciennes. The 4th Division also made considerable progress on its left flank, but on the right the line was stationary.

No. 9 Field Ambulance took over all forward posts from Nos. 1 and 3 Field Ambulances of the 1st Division by noon of the 22nd, and established headquarters in Wallers, while at the same time No. 8 Field Ambulance went to Erre and No. 10 to Somain, in charge of the main

dressing station. No. 9 Field Ambulance was responsible for clearing the front and on the evening of the 22nd moved the advanced dressing station to Raismes, for the right brigade, and for the left to Vicoigne. These locations were used until the 31st; prior to that date the few casualties coming through were easily cleared by horsed and motor ambulances running forward to the battalion aid posts.

On the 29th the 9th Infantry Brigade of the 3rd Division took over from the 11th Brigade of the 4th Division, to allow the latter division to extend its front to the right. The 4th Division, whose advanced dressing station had been in Herin since the 22nd, changed the route of evacuation more to the south in anticipation of active operations on that part of the Corps front.

The 4th Canadian Division up to this time had been held up pending developments from the attack of the XXII Corps directed from the south against Valenciennes. Divisions of this Corps had attacked the high ground to the south of the city but were not able to retain possession of Mont Houy, the key to the situation. The Canadian Corps was then called upon to assist in these operations and to the 4th Canadian Division, already on the spot, was assigned the task. The attack was set for the 1st of November and very complete arrangements were made, particularly as to artillery support. The medical arrangements, however, at first appeared to present difficulties, as Canadian troops had to attack on the east side of the canal in a northerly direction. It was at first thought that wounded might, with advantage, be evacuated through the existing medical posts of the 49th (West Riding) Division: for stretcher cases at Douchy, and for walkers, at Haspres, to Nos. 1 and 30 British Casualty Clearing Stations at Escadœuvres. This matter was thoroughly discussed with the A.D.M.S. who, however, rather than change the

established line of evacuation, decided to rearrange his own medical stations and to clear back through the Canadian Corps area to No. 1 Canadian Casualty Clearing Station at Auberchicourt and to Bois de Montigny, where No. 6 British and No. 4 Canadian Casualty Clearing Stations were located, No. 6 being ready for patients on the 1st of November.

The 4th Division attacked early on the morning of the 1st with the 10th Infantry Brigade; No. 13 Field Ambulance clearing the front. The main dressing station, on the previous evening, had been moved to the old advanced dressing station site in Denain, while the advanced dressing station was moved forward to Maing, where a bridge had been thrown across the canal. The operations against Mont Houy were most successful, the enemy being thoroughly defeated and some 800 dead, mostly the result of artillery fire, being found on the field, while many prisoners were taken. The cost to the Canadian Corps was slight, 500 wounded being cleared to casualty clearing station. There was no difficulty in the evacuation of these wounded, and those requiring surgical operations were delivered to the operating centre in Auberchicourt within three to four hours. Where necessary these cases were retained in No. 1 Canadian Casualty Clearing Station, but the majority of the wounded were sent to No. 6 at Bois de Montigny, or into Douai, where the VIII Corps stations had been placed at our disposal.

Early in the morning of the 2nd, the advanced dressing station was moved to Famars, with a clearing and car post 2,000 yards along the Famars-Valenciennes road. At the same time a car post was established for the left flank in la Sentinelle, which later in the day became the advanced dressing station. The enemy was retiring, offering little resistance, and our troops, by the evening of the 3rd, were several thousand yards beyond Valenciennes and still

advancing. At this time the route of evacuation was changed from Famars direction to the main road through la Sentinelle, where the main dressing station was established during the afternoon.

Casualty clearing stations were now coming well forward, and on the afternoon of the 2nd an advanced party from No. 33 arrived at the main dressing station in Denain, the remainder of the unit moving in on the 3rd. This casualty clearing station was receiving wounded on the 4th, thus greatly reducing the run for M.A.C. cars, which, up to this time, had been going to Auberchicourt and Douai.

For some time the O.C. of No. 14 Canadian Field Ambulance had been requesting that his unit be given an opportunity to serve the troops at the front. As will be remembered, this unit arrived in France in June, 1918, and was immediately put in charge of the corps rest station, where its work, although valuable, had been far from exciting. The A.D.M.S. of the 2nd Division agreed to allow No. 5 Field Ambulance to take over the corps rest station work and to be replaced by No. 14 Field Ambulance, as one of his divisional units. By this time a suitable location for a corps rest station had been found in Denain and No. 5 Field Ambulance immediately moved in. This site was in a civil hospital which had been used by the Germans as a prisoner-of-war camp and was in such a filthy condition that a fatigue party was occupied for several days in cleaning it up. No. 5 Field Ambulance therefore came directly under the control of the D.D.M.S. of the Corps, and was in charge of the corps reserve of stretchers, blankets and other supplies, and also of the corps pool of C.A.M.C. reinforcements. No. 14 Field Ambulance handed over the patients in the rest station in Auberchicourt to a field ambulance of the 4th Division for disposal, and immediately joined the 2nd Division.

The patients in the Auberchicourt rest station were not finally disposed of until the 8th, when the site was taken over by First Army headquarters as a theatre. For some time the Brigadier-General Camp Commandant of Army Headquarters and, incidentally, the Manager of le Bra-Sat (The Brass Hat) Concert Party, had been pressing for this building, but as Canadian sick and wounded were still occupying all available space it was not possible to comply with his request. Army Headquarters was now taking a big jump forward, actually locating in front of Corps Headquarters, thus placing billetting accommodation in Auberchicourt at a premium.

While the 4th Division was fighting to the south of Valenciennes the 3rd Division front was stationary, but as soon as the city itself was entered the line on the left flank was pushed forward. No. 9 Field Ambulance continued in charge of clearing the wounded and on the 4th moved the advanced dressing station to St. Saulve. At this time the main route of evacuation for both divisions in the line was the Valenciennes-Mons road, wounded being collected to car posts in the smaller villages on the flanks, and thence to advanced dressing stations in the larger towns. On the 6th, the advanced dressing station of the 3rd Division was in Onnaing, while the main dressing station was moved to St. Saulve. On the 4th Division front, the advanced dressing station at la Sentinelle on the 3rd, moved into Valenciennes, to the drill hall at the corner of Rue de Mont, and again on the 4th to St. Saulve. On the 5th, a post was established in Estreux for the right flank and in Onnaing for the left. At the same time the main dressing station was moved to the Ecole Normale in Valenciennes.

During the fighting around Valenciennes, considerable excitement was occasioned by many men of the 12th Battalion Canadian Engineers showing symptoms of poison-

ing, and at once the enemy was accused of tampering with the water supply. The symptoms of this illness were headache, trismus, vomiting, abdominal pain and pharyngitis. Samples of water were immediately examined but no metallic poison was found, and ptomaine poisoning was the final diagnosis, thus necessitating a close investigation of the canned goods and other supplies delivered to this unit.

Upon several occasions during the war, reports were received from other parts of the western front to the effect that the water supply had been poisoned by the Germans, and the Canadian Corps was always on the alert when an advance into new territory was made. In 1917, before the Vimy Ridge operations, definite instructions were given for all water in the newly won area, before being used, to be examined for metallic-poisons. For this purpose the small metallic poison field-case, supplied to all medical officers attached to units, was used; but as can be imagined the tests made under such conditions were not always reliable. When the troops of the 3rd Division first entered Vimy village, one medical officer considered the water examined sufficiently suspicious to report it containing arsenic. Until this report could be verified at the mobile laboratory, a special divisional order was issued prohibiting the use of all water east of the ridge. Needless to say, the laboratory did not find arsenic.

Reports of the poisoning of water supplies by the Germans would appear on a par with similar reports of their deliberately disregarding the provisions of the Geneva Convention, by shelling and bombing dressing stations. From experience with the medical service of the Canadian Corps, it can be safely stated that well-established dressing stations in the forward area were not deliberately shelled or bombed. On occasion, when a dressing station

was located in the proximity of guns, ammunition dumps, or supply depots, it came in for a share of attention from the enemy. At such times personnel which should have been protected by the Red Cross flag did suffer casualties, but it was never felt that we had any particular grievance against the enemy in this regard.

The medical service of the British Army was invariably most scrupulous in complying with the provisions of the Geneva Convention, thus depriving the enemy of any excuse for firing upon medical posts. At times our troops were very bitter against the Germans for sniping stretcher bearers while collecting wounded under a Red Cross flag; instances of this undoubtedly did occur, but the individual sniper was hard to control. A senior officer in command of a unit which went over on the morning of April 9, 1917, at Vimy Ridge, upon requesting permission to have the use of a dressing station for assembling a support platoon, was highly indignant when the A.D.M.S. could not see his way clear to comply. The Geneva Convention was referred to, but was more or less ridiculed. This officer could not quite understand why we should be so particular when the enemy shelled our dressing stations and sniped our stretcher bearers, and, moreover, he considered that we should do the same. This, undoubtedly, was for the special benefit of the A.D.M.S. who, however, reserved his dressing station for legitimate purposes and later in the year had his contention upheld by the officer himself. At Passchendaele, when this commanding officer found that his regimental stretcher bearers were allowed to collect wounded in *No Man's Land* under the Red Cross flag, an urgent message was sent to divisional headquarters for all such flags available to be rushed up. This instance is mentioned to show that, while individuals at times were apt to disregard the acknowledged customs of war, it

would appear that the Red Cross flag generally commanded an equal degree of respect from the enemy and ourselves. As late in the war as 1918, after the Germans had broken through, both the 2nd and 3rd Canadian Divisions while serving with the THIRD ARMY in front of Ficheux, where the enemy held a commanding position overlooking the Canadian lines, motor ambulance cars were allowed each evening, while still daylight, to approach within a thousand yards of the front line and collect sick and wounded from the regimental aid posts. From ambulance cars making this trip, Germans could actually be seen on the hill to the right front, but never on one occasion were these cars sniped or shelled. This was not luck but deliberate restraint on the part of the enemy, as after dark the regimental transport using the same road was persistently shelled.

CAPTURE OF MONS.

On the morning of the 7th of November the 2nd Division pushed through the 4th on the right corps front and with the 3rd Division continued the pursuit of the enemy which ended in the taking of Mons and the Armistice on the 11th.

No. 6 Field Ambulance took over the main dressing station in St. Saulve, while No. 14 Field Ambulance, now attached to the 2nd Division, was placed in charge of clearing the front and took over all forward posts. The advanced dressing station on the right was moved to Rombies on the 6th and on the 7th to Baisieux, and on the same date, on the left, to Quiévrain. On the 9th and 10th the advanced dressing station was in Elouges and Frameries respectively, while the main dressing station on the 9th, was moved from St. Saulve to Quiévrain, and on the 10th to Paturages.

On the 3rd Division, as on the 2nd Division front, medical posts were pushed forward to conform to the

movements of the infantry. On the 7th the advanced dressing station was in Quiévrain, on the 8th in Thulin, on the 9th in Saint Ghislain and on the 10th in Jemappes. On the afternoon of the 8th the main dressing station was moved to Quiévrain, again on the 9th to Thulin, and on the morning of the 11th to Jemappes.

During the advance from Valenciennes to Mons casualties were not heavy, although the enemy was using gas shells freely. A number of civilians, as well as soldiers, were admitted suffering from the effects. All patients were evacuated to the casualty clearing station in Denain, until late on the 8th, when No. 4 Canadian Casualty Clearing Station moved into the Ecole Normale in Valenciennes and began to receive.

No. 8 M.A.C. was still with the Corps and all through the later days of the war gave splendid service under most trying circumstances. By reason of having its own workshop, cars were kept in reasonably good repair and stood up well under the unusual conditions. On the 21st of October headquarters was moved to Cantin, on the 22nd to Auberchicourt, and by the 8th of November the unit was located in Valenciennes, where it remained until after the Armistice.

The 3rd Division had the honour of taking Mons, although the 2nd Division, advancing to the immediate south of the town, had a full share in the final efforts that led to the ultimate defeat of the enemy on the Canadian front. It was a great satisfaction to all whose privilege it was to be in at the finish, and to see the once mighty German army so humbled as to accept terms that had been previously considered impossible of acceptance. To Canadians on the ground, where the original British Expeditionary Force had such a narrow escape from annihilation in 1914, the feeling of satisfaction was all the

greater. On the afternoon of the 11th the Corps Commander made his formal entry into Mons, and the Canadian troops received a wonderful reception from the inhabitants of the town.

By none more than the medical service was felt the great relief brought about by the Armistice. For many weeks the throng of sick and wounded passing through medical units had made it impossible to give the special care and consideration that our men so richly deserved. The long distances to hospital accommodation, the vast numbers to be cared for and the great transport difficulties had tested all ranks to the limit, so that when a halt was called, allowing more permanent stations to be established where better facilities for good work were available, the relief and satisfaction to the C.A.M.C. was only exceeded by the joy in knowing that the German had at last cried *Enough*!

By 11 a.m. on the 11th, British cavalry, attached to the Corps, had pushed some five or six thousand yards to the east of Mons, where a line of outposts was established by the Canadian infantry, and throughout the area units were comfortably situated in good billets. Field ambulances were brigaded and established dressing stations for the accommodation of sick not requiring evacuation. However, this was not a time to be sick, as there was far too much to occupy the attention of our men, and certainly there was no desire on their part to be admitted to hospital. Life in the neighbourhood, where one and all were looked upon as heroes and deliverers from oppression, was most agreeable, and although instructions were issued for all ranks to pay particular attention to cleaning up, this was hardly necessary, as the Canadian soldier, admittedly a good fighter, also prided himself on his appearance and made the best of his opportunity during this period of relaxation

to appear well before the civil population. No longer was there the annoyance from enemy shelling and bombing; sleep could be enjoyed without molestation usually in a comfortable bed and always, at least, in a clean building. Parades there were, it is true, but these were of short duration and most of the day was given over to recreation. The now famous *Dumb-bells*, the concert party of the 3rd Canadian Division, were soon in Mons giving daily shows in the theatre. Incidentally it should be mentioned that the *Dumb-bells* might be looked upon as a C.A.M.C. organization, having originated in the field ambulances of the division as early as the year 1916, on the Somme. A long time since, but six good stretcher bearers were still with the company rendering valuable service to our fighting men, although not carrying stretchers. Other concert parties arrived in Mons as the divisions closed up and came into the neighbourhood. All felt that the time spent in preparing for the march to the Rhine was a fitting end to the previous strenuous months.

Honours and Rewards.

That the good work of the C.A.M.C. during the last 100 days of the Great War was appreciated by the Corps, Divisional and other Commanding Officers, is evidenced by the honours and awards distributed to its personnel during this period. For services rendered from the 8th of August to the Armistice, the following awards were made to officers and men of the medical service with the Corps: V.C., 1; D.S.O., 3; Bar to D.S.O., 4; M.C., 40; Bar to M.C., 7; D.C.M., 7; Bar to D.C.M., 1; M.M., 153; Bar to M.M., 13; Croix de Guerre, 8.

Capt. B. S. Hutcheson, V.C., M.C., M.B.E., attached to the 75th Battalion, was the recipient of the V.C. This

was the second[2] time this decoration was awarded to a Canadian Medical Officer.

The official report of the deed is as follows:—

"Capt. Bellenden Seymour Hutcheson, Canadian Army Medical Corps, attd. 75th Battalion, 1st Central Ontario Regiment.

"For most conspicuous bravery and devotion to duty on September 2nd, when under most intense shell, machine-gun and rifle fire, he went through the Quéant-Drocourt support line with the battalion. Without hesitation and with utter disregard of personal safety he remained on the field until every wounded man had been attended to. He dressed the wounds of a seriously wounded officer under terrific machine-gun and shell-fire, and, with the assistance of prisoners and of his own men, succeeded in evacuating him to safety, despite the fact that the bearer party suffered heavy casualties.

"Immediately afterwards he rushed forward, in full view of the enemy, under heavy machine-gun and rifle fire, to tend a wounded sergeant, and having placed him in a shell-hole, dressed his wounds. Captain Hutcheson performed many similar gallant acts, and, by his coolness and devotion to duty, many lives were saved."

In this account of the work of the medical service, it has not been thought advisable to mention other individual acts of gallantry on the part of officers and men of the C.A.M.C., nor to refer to officers by name, unless under exceptional circumstances. Under ordinary conditions, all ranks showed the devotion to duty that has always characterized the medical service of the British Army, while during heavy fighting the many acts of bravery which denoted a total disregard for personal safety earned for the C.A.M.C. the profound respect of the fighting man. Although the medical personnel received a fair share of honours and awards, there are many who to-day might have the privilege

[2] Capt. (later Lieut.-Colonel) F. A. C. Scrimger, attached to the 14th Canadian Battalion, was awarded the Victoria Cross for conspicuous bravery whilst attending wounded on the 25th of April, 1915, at the Second Battle of Ypres.

of wearing a decoration had their deeds been brought to the attention of a reporting officer at the time. No matter what the circumstances, the officers of the Canadian Army Medical Corps invariably led their bearers, at no time did they resort to the method of directing from a distance. The competency and demeanour of all ranks, whether at the casualty clearing station or at the regimental aid post, fostered that mutual confidence and respect between officers and men which leads to the highest degree of efficiency in times of stress or danger.

Stretcher bearer work, at no time easy, became a heart-breaking task when the carry was long and the mud ankle deep. There was none of the glamour of war in this work; one had not even a weapon with the possible chance of using it. The dangers of the line were shared with the fighting troops, but long after they were securely dug in the unceasing task of the bearers continued. It was always a point of honour to remain on the field until all wounded were cleared, and there are many instances of bearers continuing on duty to clear the casualties of their own division after the line had been handed over. Possibly no men in the fighting zone were put to a greater test of endurance than both regimental and field ambulance stretcher bearers and none required a higher standard of physical fitness. A stretcher bearer squad usually consisted of four men, although six and eight were needed at times. Men were sized so that there was as little inequality in height as possible, to allow the handles of stretchers to rest on the shoulders. This method of carrying was universally adopted, being more comfortable for the patient as well as being easier for the men. A recognized method of self-protection amongst all troops in the corps area was ducking, even to the extent of flopping when in the immediate neighbourhood of incoming shells. Stretcher bearers of

course resorted to this practice on occasion, but while carrying a loaded stretcher disastrous results might easily occur from even one man of a squad ducking, and it was a part of the training that such action was to be reduced to a minimum. One particular stretcher squad of four men, all six feet or more, and in civil life policemen in a western city, prided themselves on never ducking. These men always worked together, and for many long months gave outstanding service until the unlucky shell arrived which killed three of them, as well as the patient, and severely wounded the fourth.

During the training of the 1st Canadian Division, in 1914, when company officers were requested to detail men as stretcher bearers, it was not always the best who were sent, in fact very often it was the not too promising recruit who found himself under orders to report for duty to the M.O. At this time the work of stretcher bearers was not properly appreciated, probably because it was not understood by regimental officers; however, this condition of affairs soon righted itself, and before the division crossedto France, battalion officers realized that it was a wise precaution to have some of the best men in the company trained to carry wounded.

The field ambulance being the tactical medical unit, its work has, of necessity, been given prominence. However, the regimental medical officer and the men of the fighting units, who worked under his orders and supervision, never failed to give the best of service and are worthy of the highest praise. To avoid a multiplicity of map locations the regimental aid posts have, in most cases, been omitted owing to the impossibility of following the exact movements of all the various regimental medical officers. Wherever troops were fighting, it goes without saying that the M.O. was always in the immediate

neighbourhood faithfully doing his work generally under most adverse conditions, at one time in a hole by the roadside or, again, in a partly demolished cellar. One never heard complaints against the battalion doctor from wounded arriving at dressing stations; on the contrary, men spoke of him in glowing terms of admiration, almost amounting to reverence.

For the period from the 8th of August to the Armistice, the 11th of November, the following casualties occurred among C.A.M.C. officers:—

Killed	7
Wounded and evacuated	27
Wounded and remained at duty	8

These casualties were distributed almost equally between field ambulance and regimental medical officers, viz.:—

Field Ambulance M.Os.—

Killed	5
Wounded and evacuated	12
Wounded and remained at duty	6

Regimental M.Os.—

Killed	2
Wounded and evacuated	15
Wounded and remained at duty	2

CHAPTER XII.

THE ARMISTICE AND ADVANCE TO THE RHINE.

Reference Map 7.

Upon the cessation of hostilities, in accordance with the terms of the Armistice, the leading troops of the Canadian Corps stood fast on the line reached and examining posts were placed on all roads.

Generally speaking, the policy adopted was as follows:—

(1) Our troops were not to advance east of the line reached, and our aeroplanes were to keep at a distance of not less than one mile behind that line.

(2) No intercourse or fraternizing with the enemy was to be allowed and he was not to be permitted to approach our lines.

In order to maintain the high state of efficiency throughout the Corps, commanding officers were ordered to pay the strictest attention to discipline and smartness and especially to the well-being of their men. All troops not on duty were given every opportunity for rest and recreation.

The general outline of the plan for the advance of the British armies to the Rhine provided that the Second and Fourth British Armies would advance and that the Canadian Corps would form part of the SECOND ARMY. The advance was to commence on the 17th of November and continue for thirty days. The SECOND ARMY would advance on a two-corps front, the Canadian Corps to lead on the right.

It was decided that the Corps would march on a front of two divisions, with the 1st and 2nd leading and the 3rd and 4th following.[1]

At the time of cessation of hostilities, the Canadian Corps was disposed and medical units located as follows:—

Corps Headquarters	Valenciennes.
1st Division	Masny-Montigny-Somain Area.
No. 1 Field Ambulance	Hamage.
No. 2 Field Ambulance	Lewarde.
No. 3 Field Ambulance	Hornaing.
2nd Division	In the line on the right, southeast of Mons.
No. 4 Field Ambulance H.Q.	Frameries.
No. 5 Field Ambulance H.Q.	Denain.
No. 6 Field Ambulance H.Q.	Frameries.
No. 14 Field Ambulance H.Q.	Frameries.
3rd Division	In the line on the left and in Mons.
No. 8 Field Ambulance H.Q.	Jemappes.
No. 9 Field Ambulance H.Q.	Jemappes.
No. 10 Field Ambulance H.Q.	Boussu.
4th Division	Valenciennes-Anzin-St. Vaast Area.
No. 11 Field Ambulance H.Q.	Anzin.
No. 12 Field Ambulance H.Q.	Anzin.
No. 13 Field Ambulance H.Q.	Ecole Normale, Valenciennes.
No. 1 C.C.S.	Auberchicourt.
No. 4 C.C.S.	Valenciennes.
No. 8 M.A.C.	Valenciennes.
No. 1 Sanitary Section	Valenciennes.
No. 2 Sanitary Section	Denain.
No. 4 Sanitary Section	Quiévrain.
No. 5 Sanitary Section	Denain.
Dental Laboratory	Valenciennes.
Eye Clinic	Denain.

[1] Canadian Corps operations during year 1918. Lieut.-General Sir Arthur Currie, K.C.B., K.C.M.G., etc.

In order to concentrate the Corps as far forward as possible, prior to commencing the march to the Rhine, the following moves were carried out previous to the night 15/16th of November:—

2nd and 3rd Divisions—Closed up in the eastern end of their respective areas, with the following moves of Field Ambulances:—
No. 4 Field Ambulance—to St. Symphorien, on the 11th.
No. 5 Field Ambulance—to Frameries, on the 16th.
No. 6 Field Ambulance—remained at Frameries.
No. 8 Field Ambulance—Institut Provincial de Hygiene et de Bacteriologie, in Mons, on the 12th.
No. 9 Field Ambulance—Institut Provincial de Hygiene et de Bacteriologie, in Mons, on the 12th.
No. 10 Field Ambulance—into Mons, on the 14th.

1st Division—Concentrated in the area Thulin-Boussu-Hornu-Jemappes, west of Mons.
No. 1 Field Ambulance—to Hornu, on the 15th.
No. 2 Field Ambulance—to Hornu, on the 15th.
No. 3 Field Ambulance—to Flenu, on the 15th.

4th Division—Concentrated in the area La Bouverie-Paturages-Wasmes, southwest of Mons.
No. 11 Field Ambulance—to Quiévrain, on the 16th.
No. 12 Field Ambulance—to Quiévrain, on the 16th.
No. 13 Field Ambulance—to Frameries, on the 16th.

Corps troops—to Jemappes area.
No. 14 Field Ambulance—remained in Frameries.
No. 1 Sanitary Section—Frameries.
No. 2 Sanitary Section—Mons.
No. 4 Sanitary Section—Mons.
No. 5 Sanitary Section—Flenu.
No. 8 M.A.C—to Mons.

During this period of concentration, each division was responsible for its own medical arrangements and all sick were evacuated to No. 4 Canadian Casualty Clearing Station in Valenciennes. Field ambulances were brigaded and, generally speaking, each looked after the sick of its own brigade, although the locations of units did not allow

of this arrangement being strictly adhered to and collections were made from defined areas. No. 14 Field Ambulance was still attached to, and later marched to the Rhine as part of, the 2nd Division. Sanitary sections were attached to divisions not according to their original associations but as they came forward and located in divisional areas, viz.:—

No. 1 Sanitary Section—4th Division.
No. 2 Sanitary Section—2nd Division.
No. 4 Sanitary Section—3rd Division.
No. 5 Sanitary Section—1st Division.

No. 3 Sanitary Section was not in the forward area at this time, not having taken part in the advance of the Canadian Corps during the last hundred days. The Officer Commanding this unit for some time had been making a special study of a delousing chamber, and had reported to General Headquarters for work in connection with the construction of a number of delousers for the different armies.

While in the Mons area, during the period of preparation for the march to the Rhine, by a special agreement with the Germans, arrangements were made to collect sick and wounded prisoners from enemy hospitals. Convoys of fifteen motor ambulance cars, with the necessary medical attendants and supplies, were allowed to cross the line for the purpose of bringing in all those unable to walk. The locations of these prisoners were notified by the Germans to British Headquarters and on the Canadian front they were collected into Mons, for further evacuation to the base. These men were invariably in a filthy condition, and covered with vermin and neglected sores, the latter often ulcerated to the bone. They were all badly in need of medical and surgical treatment, being poorly nourished and usually half naked. To assist in caring for these prisoners, No. 1 British Casualty Clearing Station moved to Mons on the 15th of November.

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The instructions for the carrying out of the advance to the Rhine were issued while the troops were concentrating around Mons. The conditions generally were as follows:—

(1) The country through which the advance was to be made was divided into zones, from each of which the enemy was to withdraw on the day before our troops entered.

(2) The advance was to be carried out under active service conditions and all military precautions against surprise were to be taken. During the march, each column was to be covered by an advanced guard, and on arrival at destinations outposts were to be established in accordance with "Field Service Regulations." Troops were to be billeted in sufficient depth to facilitate supply, but adequate force would be kept ready on forty-eight hours' notice to overcome any attempted resistance by the enemy should he oppose our advance.

(3) The advance would be covered by a cavalry screen, one day's march ahead of the leading infantry.[2]

The medical arrangements for the advance required special consideration. This was a new country, about which very little information could be obtained and where civil hospital accommodation could not be expected. In addition to our own sick, large numbers of sick and wounded prisoners of war would require attention. Extra medical and surgical supplies would be necessary and have to be taken along. Transport difficulties were still great and the farther the advance the longer the haul from railhead, both for supplies and for the evacuation of sick. Field ambulances in preparation for the move overhauled all equipment and paid particular attention to the transport, both motor and horsed. All available space was loaded with

[2] Canadian Corps operations during year 1918. Lieut.-General Sir Arthur Currie, K.C.B., K.C.M.G., etc.

extra supplies. The Canadian Red Cross representative was always in touch, and was still prepared to provide the extras so much appreciated by the sick.

Contrary to the original intention, only two of the four Canadian divisions were allowed to march on the 18th of November, viz., the 1st and 2nd; the 3rd and 4th remaining in the Mons area. The field ambulances of the two advancing divisions, with No. 14 to look after the corps troops, therefore formed part of the invading force. Other medical units necessary were two casualty clearing stations and two sanitary sections, as well as the motor ambulance convoy. Sanitary sections were not with their original divisions and Nos. 5 and 2 accompanied the 1st and 2nd Divisions, respectively. A special request was made to the SECOND ARMY for permission for No. 8 M.A.C. to accompany the Corps. This unit had so well served the Canadians during the very strenuous times of the 1918 fighting that the medical service felt it would not be complete without its own convoy. Nos. 1 and 4 Canadian Casualty Clearing Stations had been working in the area of the Corps for a long period previous to the last 100 days, and had followed in close touch during the advance. These two units fully expected to go to the Rhine, but as divisions were chosen according to seniority it was finally decided that Nos. 1 and 2 Casualty Clearing Stations should accompany the troops into Germany. Many in the Corps shared in the disappointment of No. 4 Casualty Clearing Station at this decision, for the unit, with its genial commander, was a valuable asset in any circumstances. However, the D.M.S. of the SECOND ARMY particularly recommended that No. 2 Canadian Casualty Clearing Station, which had been serving with him for two years or more, should be one of his medical units. This division of the Corps necessitated the separation of old friends and com-

rades, and was a sad thought for many who had had the privilege of serving at the front since the early days of 1915. It was the beginning of the end.

On the 18th of November the march to the Rhine began. All medical arrangements for a force moving in enemy territory were made, each A.D.M.S. being responsible for his own division. Each division was divided into three groups, corresponding to brigades, and to each was attached one company of the machine gun battalion, one battalion of engineers, one field artillery brigade and one field ambulance. The field ambulance was responsible for all medical arrangements and the C.O. of the unit made disposition of his personnel to meet the requirements of his brigade group. The main body of the field ambulance marched in rear of the engineers, while sufficient personnel was detailed to the advanced guard. In some cases battalions were followed by horsed ambulances, and sick were collected each night by the motors. The field ambulance accompanying the rear brigade was made responsible for establishing a divisional collecting post for sick, to which patients were collected from the whole division for further evacuation to casualty clearing station.

As the advance progressed and distances became greater for both M.A.C. and F.A. motor cars, considerable difficulties were encountered and some dissatisfaction arose among field ambulance commanders. For some time previous to this, the Senior Mechanical Transport Officer of the Corps had considered that each division should be supplied, as nearly as possible, with the same make of ambulance car. This was to allow the mechanical transport company responsible for the upkeep to carry spare parts for one, or at most two, makes of car. On the 16th of November, this re-arrangement was carried out, when certain cars were withdrawn from one division and handed

over to another. Needless to say, in the opinion of field ambulance commanders and A.Ds.M.S. of divisions, cars received were never in as good condition as those lost, and particularly was this the case with the 2nd Division, where the A.D.M.S. found it necessary to make several official reports in this connection. Whether or not the 2nd Division was peculiarly affected was never definitely settled, but this division continued to complain of the inability of its motor ambulances to cope with the work. The Senior Mechanical Transport Officer of the Corps was interviewed on several occasions but, as there were no better cars available, the matter had to stand. The difficulties of the 2nd Division were offset by a larger allotment of M.A.C. cars.

On the 18th of November, when the leading troops of the 1st and 2nd Divisions pushed through the outpost line at 9 a.m., the medical units in the rear which were serving the Corps were located as follows:—

Casualty Clearing Stations—
No. 1 (British), at Mons.
No. 57 (British), at St. Saulve.
No. 4 Canadian, at Valenciennes.
Mobile Laboratory, at Leuze.
Mobile X-Ray Unit, No. 7, at Sweveghem.
Advance Depot Medical Stores, No. 2, at Leuze.
Canadian Red Cross Depot of Supplies, at Valenciennes.

The Canadian Corps Eye Clinic, in Valenciennes, closed on the 14th, the personnel being attached to No. 5 Field Ambulance for the march to the Rhine. The Corps Dental Laboratory closed on the 15th, with instructions to remain with the First Army, until it could be pushed forward by rail. This, however, was never done, and the laboratory later moved to Tournai, to attend to the dental needs of the 3rd and 4th Divisions before demobilization. In March, 1919, upon the return of the Canadian Corps

from the Rhine, the Dental Laboratory changed its location to Namur, for work with the 1st and 2nd Divisions.

Six M.A.C. cars, and one motor bus for sitting cases, were attached to each division to clear to casualty clearing stations. This number of M.A.C. cars was later increased to ten and these at times were used to go forward of the divisional collecting posts and collect sick from brigade or group areas. Cars were busy day and night as, in addition to the normal work, the collection of sick prisoners of war entailed an extra strain on these vehicles. Each division was responsible for having ten cars ready upon short notice to go forward as a convoy, with food and surgical supplies, and to evacuate prisoners. On the 19th, one convoy removed thirty-five patients from Nivelles, where they had been left in charge of Belgian Sisters of Charity, who had done well by their patients considering the scarcity of food, clothing and dressings. As the line advanced from day to day, excursions into enemy territory by the D.D.M.S. Corps, A.Ds.M.S. Divisions and M.Os. of Field Ambulances disclosed groups of prisoner patients in many small villages, as well as in smaller towns, where hospitals had been established by the Germans. On the 24th, 70 prisoners were collected at Gembloux and evacuated to No. 36 Casualty Clearing Station, which had opened in Nivelles on the 22nd. On the same day, some 30 were removed from Fleurus; on the 25th, 150 were found in Couthuin and taken to No. 1 Canadian Casualty Clearing Station in Gosselies, which was barely receiving, having just moved in the day before. In this Canadian casualty clearing station at one time there were 338 returned prisoners of war, 172 British and 166 from the allied armies; the following report, by the Officer Commanding, will give a further idea of the condition of the men when received into British medical units:—

"In every case these men arrived in a deplorable condition, weak, dirty, emaciated and suffering from very marked inanition. Without any exception they were very lousy, very scantily clothed and most of them had no underclothing. Of the few who had underclothing many had obtained it from Belgians—some having woollen and some having cotton pyjamas as underclothing. A large number had no boots, while some had wooden Belgian clogs. A few had overcoats of nondescript pattern. A large number had no caps and some were without tunics.

"The medical cases were suffering from starvation and inanition chiefly, with very marked diarrhoea which resembled dysentry. Those not too far gone showed a marked improvement during the week they were with us—the diarrhoea clearing up quickly.

"The majority of the surgical cases had indolent, dirty, sloughing ulcers of the legs, accompanied in many cases by great swelling of the feet. In many these ulcers had spread due to lack of proper care and dressing and lack of food. In some cases the body was also covered with these sores. It was remarkable to see the change produced in a few days by proper care and good food. Of the serious surgical cases one especially deserves mention—a compound fracture tibia and fibula. Under ordinary care from the first this case would have done well. As it reached us it was in a hopeless condition and very septic and the man's condition very poor. Even if neglected at the beginning an amputation a few weeks before he reached us should have been performed. In an effort to save his life an amputation was performed, but the patient died a few days after."

In a later report, 11/12/18, dealing with returned P.O.W., mostly French soldiers, he states:—

"These are in a similar condition, just as dirty, lousy, emaciated, scantily clad, etc., as they can be. Their wounds show gross neglect. The following case is an illustration.

"This is a French soldier who had been in a German hospital since November. He had on admission today a large empyema of over four pints. From his appearance it is evident that he had had this trouble some time.

"To sum up all the R.P.O.W. received were absolutely and wantonly neglected. Eight have died in this C.C.S.,

all of whom would have been living but for the treatment given by the Germans. It is impossible to imagine men getting into such a condition unless one saw it with his own eyes."

Our troops had now pushed beyond Namur, where some 700 sick prisoners were found in various hospitals throughout the city. These men were in urgent need of attention and a casualty clearing station, No. 44 British, was rushed up on the 25th to take charge of the situation. A car load of Canadian Red Cross supplies for distribution was turned over to the O.C. this unit. Sick prisoners continued to pour in from all outlying towns. Many were French, some Belgian, but all had equal attention with British. Our casualty clearing stations soon became congested so that difficulty was experienced in securing accommodation for our own sick. Many prisoners were reported in Andenne and Huy, and upon investigation it was found that in view of the congested casualty clearing stations in the rear, the number was too great to remove. A detachment from No. 44 Casualty Clearing Station in Namur was therefore despatched to Huy and, with the assistance of one M.O. and 15 orderlies from No. 1 Canadian Field Ambulance, established a small hospital for the care of these patients.

During the first ten days of the advance, although railhead was still west of Valenciennes, casualty clearing stations were well forward, and evacuation, in spite of the large number of sick prisoners, was carried out without undue difficulty. On the evening of the 18th, the troops were considerably east of Mons, with the divisional collecting posts within easy distance of the casualty clearing station in the town. On the 19th and 20th the divisions did not march, but by the evening of the 21st had reached Gosselies, Nivelles and Lillois, where they rested during the 22nd and 23rd. On the 22nd, No. 36 Casualty Clearing

Station moved into Nivelles, thus establishing hospital accommodation in the midst of the troops. By the 25th, the line was through Namur, Meux and Grand-Leez, still within possible distance of the casualty clearing stations in Nivelles and Gosselies and, at the same time, No. 44 opened in Namur and was available for emergency cases although fully occupied in caring for prisoners.

By the 27th of November the direction of the advance was changed to southeast and the troops crossed the river Meuse at Namur and Huy, and by the evening had reached Seilles and Coutisse. Clavier and Mean were occupied by the evening of the 28th, at which time limited hospital accommodation was available in Huy. The troops were now entering the region of the Ardennes and, with the breaking of the weather, the sick wastage was showing an increase. At this time there was an average daily evacuation of 35 per division, with an additional number from corps troops. The nature of the country on the Canadian front was such that it was not possible to locate a casualty clearing station east of Huy, and by the time the German border was reached a journey of 50 miles to hospital would be necessary. Instructions were issued for divisional collecting posts to be established well to the rear of each column in order to equalize the haul for field ambulance and M.A.C. cars. Medical and surgical supplies were now running short, and to replenish these it was necessary to draw from the advanced depot at Gosselies, west of Namur. The depot remained at Gosselies until the 8th of December, thus necessitating a journey of two days to make the return trip.

In spite of the many hardships resulting from poor supply facilities, the long distance to casualty clearing station, the bad weather and the rough country, the march through the Ardennes was accomplished in reason-

ably good time. The sick wastage was not unduly high and the medical transport, although at all times worked hard, was able to keep units cleared. On the 4th of December the leading Canadian troops crossed into German territory, where the country was still rough and the weather bad. The casualty clearing station situation was now becoming acute, as it was hopeless to attempt to clear to Huy, and hospital accommodation somewhere closer was urgently needed. The D.M.S. of the army was consulted at his advanced headquarters at Spa and arrangements were made to admit a certain number of our sick to No. 64 British Casualty Clearing Station, which was opening in Spa. This unit, primarily, was to serve the corps to our left and had very limited accommodation. The situation was relieved, however, on the 7th of December by No. 17 British Casualty Clearing Station moving to Verviers, thus reducing the congestion in No. 64 and making it possible for this unit to admit all our sick. Canadians were thus cared for by British units until the 10th, when No. 1 Canadian Casualty Clearing Station opened in Euskirchen. By this time our leading troops were nearing the Rhine, and with one casualty clearing station close up and a second locating in Bonn about the middle of the month, the evacuation problem was greatly relieved.

On the Rhine.

On the 13th of December the Canadian troops crossed the Rhine, the 1st Division at Cologne, and the 2nd at Bonn, and immediately established the southern half of the Cologne Bridgehead. Field ambulances were still with brigades and were located in suitable positions to serve all troops. Many good sites were available, particularly at Troisdorf, where a very complete hospital in

connection with the munitions factory was taken over by No. 14 Field Ambulance as a corps rest station. Each division established its own rest station, and advanced sections of field ambulances were pushed forward to serve the troops near the perimeter of the bridgehead. The following instructions as to medical arrangements were issued on the 16th of December and, with few changes, were in effect while the Corps was on the Rhine:—

I. D.D.M.S. Office, Bonn (15 Coblenzer Strasse).
No. 8 M.A.C., Bonn (Cavalry Barracks, Rheindorfer Strasse).
Advance Red Cross Stores, Bonn.
Canadian Corps Rest Station,
No. 14 Canadian Field Ambulance, } Troisdorf.
Canadian Corps Eye, Ear, Nose and Throat Clinic, Troisdorf (with No. 14 Canadian Field Ambulance).

II. A.D.M.S. 1st Canadian Division, Bayenthal.
No. 1 Canadian Field Ambulance, Wahn (Artillery Barracks).
(Divisional Rest Station).
No. 2 Canadian Field Ambulance, Urbach.
No. 3 Canadian Field Ambulance, Cöln-Vingst.

III. A.D.M.S. 2nd Canadian Division, Bonn (92 Poppelsdorfer Allee).
No. 4 Canadian Field Ambulance, Bonn (Cavalry Barracks, Rheindorfer-Strasse).
(Divisional Rest Station).
No. 5 Canadian Field Ambulance, Putzchen.
No. 6 Canadian Field Ambulance, Siegburg.

IV. Sanitary Sections—
No. 2 Canadian Sanitary Section, Troisdorf.
(2nd Canadian Divisional Area).
No. 5 Canadian Sanitary Section, Cöln-Vingst.
(1st Canadian Divisional Area).

V. Casualty Clearing Stations—
No. 1 Canadian C.C.S., Euskirchen (moving to Bonn on 20th).
No. 2 Canadian C.C.S., Bonn.

VI. Dental Arrangements—

An Officers' Dental Clinic will be opened at Bonn at an early date. A Dental Officer is located at the headquarters of each Field Ambulance and at each Canadian C.C.S.

Corps troops will send cases to the nearest Dentist.

VII. Infectious Cases will be evacuated to the Receiving C.C.S.

VIII. Units without M.Os. will send their sick to the nearest Field Ambulance, C.C.S., or Unit having a Medical Officer.

Shortly after the arrival of the Corps on the Rhine, the admissions to hospital from venereal disease showed an abnormal increase, even over what might be expected from troops billeted in the neighbourhood of large cities. Cologne was a source of infection hard to control, and 50 per cent of the cases reported from there were syphilis. In the smaller city of Bonn, the location of Canadian Corps headquarters, better results were obtained from the precautions taken. The city was immediately under Canadian administration, and the local civil authorities co-operated in rounding up all known prostitutes of whom a complete list was forwarded to the Military. Bi-weekly inspections by a German doctor in the presence of a British medical officer were held, and all women found suffering from venereal disease were admitted to a special hospital provided by the civil authorities. In this way the danger from professional prostitutes was reduced to a minimum, but the unknown amateur was still available and hard to trace, and in spite of all efforts remained a source of infection. The surrounding towns and villages also added their quota to the high admissions. Although some fifty-five *Blue Light* or early treatment centres were established in the Corps area, and in spite of lectures given by medical officers in all units, and the precautions taken to provide preventives to men going on pass, the high rate of admis-

sion to hospital from venereal disease continued for the whole period that the Corps was on the Rhine.

As part of the defence scheme of the Canadian section of the Cologne Bridgehead, medical arrangements were worked out in detail. These at the time were quite necessary, but they were not put into effect and are now of little interest. By the 26th of January Canadian troops had left the Rhine for Belgium, and were located in the area north and west of the Meuse with headquarters of formations as follows:—

Corps Headquarters, at Andenne.
1st Division, at Huy.
2nd Division, at Profondville.
3rd Division, at Tournai.
4th Division, at LaHulpe.

For the next two months, while awaiting return to England, preparations for demobilization were made, and particularly as regards dental treatment, which had been more or less neglected during the advance and the sojourn on the Rhine. The Corps Dental Laboratory moved into Namur, where also was opened an officers' clinic. Three extra dentists were obtained and detailed to the divisions in succession, according to priority of demobilization.

On the 1st of February, Canadian Corps Headquarters moved from Andenne to Jodoigne, where it remained until the divisions returned to England. The period between the 1st of February and the 6th of May was one continuous fight against venereal disease; our troops were billeted in the neighbourhood of cities and towns to which they were allowed on pass, and from which many returned infected. A division admitted as many as fifty-seven in a week, and this in spite of all efforts to combat the evil, on the part of the medical authorities and administrative staff of the Corps and divisions. Our troubles with regard to venereal disease, begun on the Rhine, continued as long as we had

troops in the neighbourhood of such cities as Brussels, Namur and Liège.

It was originally intended that all men should be medically boarded before leaving France and Belgium, and this was carried out in the 3rd Division, the first to depart. Later instructions, however, were to the effect that all medical boarding, before demobilization, would be done in England where very complete arrangements for the purpose had been made at Witley Camp. In addition to the general preparation for return to England, units of all divisions were called upon to complete particulars of each man showing his ultimate dispersal area and then grouping men according to their final destination in Canada. Cards were also prepared showing each man's proposed civil occupation, etc., with a view of giving him assistance, if required, on his return home.

As the time for departure for each division drew near all equipment, stores and transport of medical units were turned in; the technical medical to the advanced depots medical stores; the dental to the Canadian Corps dental laboratory in Namur; the ordnance to British ordnance depots; horsed ambulances and general service wagons to vehicle reception parks, and the horses to horse demobilization camps. Motor ambulances, needed for the collection and clearing of sick, were retained until the last and, upon the departure of units, were left in charge of officers who were to turn them over to the British authorities through C.A.S.C. depots.

All divisions returned to England by way of leHavre, where men were given a thorough cleaning up, which consisted of hot baths, fumigation of outer garments and issue of clean underwear. While awaiting embarkation the men were billeted in clean huts where there was little or no possibility of again being infested with vermin. All units,

upon arrival in England, were immediately sent to camps in the neighbourhood of Bramshott and Witley, where comfortable huts, provided with stoves, had been set aside for their reception. Here the men were again issued with clean underwear and also four blankets per man. During the stay in England final documentation and medical boarding were carried out and all ranks given eight days' demobilization leave.

The divisions left Belgium in the following order: 3rd, 1st, 2nd and 4th, the 3rd Division starting the move from the Tournai area on the 1st of February, the others following in succession as transport to the base and accommodation at leHavre and in England became available. The medical units of the 3rd Division entrained as follows: No. 10 Field Ambulance on the 8th of February; No. 8 Field Ambulance on the 10th of February; No. 9 Field Ambulance on the 12th of February; at the end of a journey of twenty-four to thirty-six hours in each case leHavre was reached. After cleaning up at the base, units left for England, where they arrived at Witley Camp as follows: No. 10 Field Ambulance on the 14th; No. 8 Field Ambulance on the 16th; No. 9 Field Ambulance on the 19th. Officers and men destined for the same dispersal area in Canada were now formed into units and embarked for the transatlantic journey, as ships became available. One unit, No. 8 Field Ambulance, will serve as an example of how men who had worked together for many months and perhaps years, were separated for this last trip and return home. This unit was originally recruited in Calgary early in the year 1916, but upon return to Canada the personnel was finally demobilized in the following centres: Toronto, Calgary, Ottawa, Kingston, London, Brandon, Saskatoon, Regina, Hamilton, St. John, N.B., Montreal, Charlottetown and Winnipeg.

The other medical units of the Corps and the Canadian Casualty Clearing Stations crossed to England as follows:—

Unit.	Left Belgium.	Arrived England.
No. 1 Field Ambulance	March 16	March 20.
No. 2 Field Ambulance	March 21	March 25.
No. 3 Field Ambulance	March 24	March 28.
No. 4 Field Ambulance	April 8	April 12.
No. 5 Field Ambulance	April 10	April 14.
No. 6 Field Ambulance	April 6	April 10.
No. 11 Field Ambulance	April 24	April 29.
No. 12 Field Ambulance	May 3	May 8.
No. 13 Field Ambulance	April 17	April 27.
No. 14 Field Ambulance	May 6	May 10.
No. 1 Sanitary Section	April 3	April 4.
No. 2 Sanitary Section	left early in February for duty at the Canadian Embarkation Camp, leHavre	May 16.
No. 3 Sanitary Section	February 13	February 16.
No. 4 Sanitary Section	April 6	April 8.
No. 5 Sanitary Section	was broken up at Wavre, Belgium, and personnel attached to dispersal units.	
No. 1 Canadian C.C.S.	left Bonn, Germany, February 13	February 25.
No. 2 Canadian C.C.S.	left Bonn, Germany, February 12	February 25.
No. 4 Canadian C.C.S.	left Mons, Belgium, March 30	April 4.

Thus, the C.A.M.C. returned from Flanders Fields where for four years it had faithfully served the troops at the front. The last journey to the base at Boulogne for the crossing to England, afforded an opportunity for a hurried visit to the devastated area of the old line. In places many happy occasions were recalled; again most unpleasant incidents and gruesome sights could not be

forgotten. The terrible Salient, always an unloved spot, and still a land of desolation, brought back memories of that nightmare, the second battle of Ypres and poison gas; of the tenseness and uncertainty during comparatively quiet times of holding the line; of June, 1916, when two Canadian divisions suffered severe casualties and all three were engaged in heavy fighting; of Passchendaele in the fall of 1917, with its mud, rainy weather and all but impossible fighting conditions. The one bright remembrance of this part of the front is the knowledge of work well done, and of determined and courageous efforts on the part of Canadians in the general defence of this last small strip of Belgian territory.

To the south of the Salient the remains of the once pleasant villages of Reninghelst, Westoutre, Locre, Dranoutre and St. Jans Cappel were visited. The battles of the Lys, fought during the German offensive in April, 1918, had caused the destruction of this happy billeting area of former days, and it was with feelings of sadness that our journey was continued. Bailleul, for many months headquarters of the Corps and the centre of Canadian life at the front, was found flat to earth, with no sign of life except an occasional passing vehicle, a curious British soldier, or a returning peasant. The whole surrounding area had been overrun, Nieppe and le Romarin were badly battered; but still, the remains of some houses were standing. Ploegsteert Wood, green and shady in 1915, was now a neglected waste of broken trees and shell-ploughed ground. At Armentières, from the earliest days of the war a much bombarded town, many buildings yet stood, but all showed the effects of German shells. Fleurbaix and Sailly, in the region of our first holding the line, were mostly in ruins, as were Estaires, Merville, Neuf Berquin, Vieux Berquin and Locon. Bethune, always close to the line on the northern edge of the Vimy

Ridge area, and of which many who served in the Corps have pleasant recollections, was badly damaged but not completely destroyed. The villages and towns behind the ridge, including the city of Arras, had all suffered in varying degree, but as this part of the line had fluctuated little, the devastated area was not so deep as on other fronts.

Many old dressing stations were visited. Some still remained where buildings had been used, while the sites of others could only be guessed at, so completely had the work of destruction been accomplished. In all cases the advanced dressing station dugouts were in a state of disrepair, the sagging entrance making it difficult and unsafe to proceed far underground. And there an abandoned stretcher, with significant stains on the canvas; a grim reminder of days gone by, days of great activity and of great deeds in which the medical service played its part—a part that justly entitles the C.A.M.C. to share in the illustrious record of the Canadian Corps.

L'ENVOI.

"O! wad some power the giftie gie us
To see oorsels as ithers see us."

So Burns expressed the wish that often lies unspoken in the heart of a man and it seems only fitting that at the close of this great record of service the mirror of the public mind should be burnished, that the C.A.M.C. may see therein its own reflection.

The C.A.M.C. has never sought praise. It has been content simply to do its duty. With what fidelity and devotion its great work was done, those who served with the Overseas Forces are proud to testify. It is the privilege of one who was a spectator of the C.A.M.C. on active service to offer at the close of this book a tribute to those who, after the manner of the British Navy, maintain an excessive silence on their own exploits and heroisms.

The foregoing pages of this volume set forth the chronicle of the Medical Services during the last hundred days of the war. With perfect lucidity and complete mastery of technical detail it gives us an unadorned account of how the C.A.M.C. met the emergencies of those memorable days when the army, leaving behind its maze of trench systems, launched the final attack which brought us victory on the 11th of November, 1918. In this new phase of warfare our forces were quite untried. Every branch of the service had to be adapted to new conditions and prepared to cope with new difficulties. It was a supreme test of initiative and resource. There is no more splendid chapter

in the history of the C.A.M.C. than this in which, following the advancing armies, with all the conveniences of a stationary front left behind, and with an ever-increasing distance between the line and the base, it continued with unimpaired efficiency to do its saving work for the forces. Behind the bare statement of how this was achieved and of what it involved, there lies a story of personal courage and unremitting toil which commands the honour and gratitude of the Canadian people.

It is impossible to attempt here any detailed description of the work of the Medical Services in the field. One would wish to be able to present, in a series of graphic pictures, the life of the C.A.M.C. from the regimental aid post in the line, down past the field ambulances and the casualty clearing stations to the great base hospitals. It may be that that will yet be done, and if so, the Canadian war records will be enriched by one more chapter of heroisms and in some measure the C.A.M.C. will come to its own in the gratitude and honour of the Dominion.

Here, however, a single paragraph must stand as representative of the whole gallant story. It concerns the Battalion Doctor. It is that cold and nervous hour before the attack. The M.O. is in a position immediately behind the "jumping off" line. He has organized his staff to cover the battalion front and with his sergeant and corporal burdened with medical supplies, he awaits the barrage. As soon as it falls he moves off with the first wave of attack. For him it is not a question of waiting in a dugout to receive the wounded; he must be with the battalion to do the ordinary work of first aid and to establish his dressing station the moment the "objective" is reached. So he goes into the smoke and tumult of action, to take his chance and, if need be, to give his life in the service of his men.

"How many owed their lives to him
No man shall tell;
Over the top in the half-light dim,
Into the fiery hell,
Unsent he went,
Seeking them there,
And to the depths of their despair
Came like an answered prayer."

The M.O. might be, and undoubtedly was, the subject of much lurid criticism when, in "rest" days, he sent the malingerers back to unwelcome duty satiated with pills; but the M.O. in action was beloved of every man who saw him at his work, one of themselves, day and night their friend in the hour of weakness and of pain. An aid post in action is a grim spectacle. There are rows of stretchers, huddled groups of walking cases, blood everywhere and the sound of suffering in the air, but in the midst, the doctor at his merciful work, haggard and wan he may be, from sleepless nights and unresting days, but he has about him an air of authority, a suggestion of undismayed confidence which, in itself, reassures and comforts weary men. Honour to whom honour is due! Be he the battalion doctor or the officer on duty in the field ambulance, or the surgeon in the operating room of the casualty clearing station, or the base hospital, here is a man who through courage and devotion has maintained and advanced the traditions of a profession which, from its earliest days, has stood for the unselfish service of mankind.

And with the names and memories of our doctors there must ever stand those of the nursing sisters, that noble company of women who also gave their best gifts in the one ministry of mercy. Only the wounded know what the presence of a "Sister" can mean to a man in pain. They, more than any others, can say "amen" to these words of tribute offered to the nursing sisters of the army.

"For all the christliness of gentle hands
Which soothe the passage of the running sands;
For grace of heart and life and winning face,
To young lives broken in the fiery race;
For all her ministry to days and nights
Of ceaseless pain that gnaws and saps and blights;
For that high soul of pure white womanhood. . . .
. . . . We thank Thee Lord."

To the C.A.M.C. the men and officers of the Canadian Expeditionary Forces were, and ever shall be, debtors. Our gratitude cannot be given in words, but as this volume goes out with its statement of achievement, its technical and almost cold analysis of organization and policy, we, of the Canadian Corps, who know something of the courage and fidelity which lie behind the record, salute in honour and gratitude the men and women who were literally the "strength" of the C.A.M.C.

—*A Padre.*

APPENDIX I.

Secret.

3rd CANADIAN DIVISIONAL MEDICAL ARRANGEMENTS, WITH REFERENCE TO 3rd CANADIAN DIVISION G.344, DATED 5–8–18.

Regimental Medical Service.

The following R.A.Ps. are now available:—

U.27.a.1.5., sh. 62D.
U.26.b.1.2., " "
U.26.central " " (Tunnel under road).

This last site will also be the Forward A.D.S. of the Field Ambulance clearing the front.

In view of the fact that additional R.A.Ps. will be necessary, regtl. M.Os. must secure such accommodation from the Os.C. their battalions. The location of such R.A.Ps. must be immediately notified to the O.C. No. 8 Cdn. Fld. Amb., who will be located at the Tunnel under the Road, at U.26.central, sh. 62D.

Extra stretchers to the number of 16 per battalion will be drawn from the A.D.S., T.17.d.central, sh. 62D. A Divisional dump of stretchers and extra blankets will be established at the Forward A.D.S., U.26.central, sh. 62D., and at the A.D.S., T.17.d.central, sh. 62D.

Forward Advanced Dressing Station.—U.26.central, sh. 62D. (Tunnel under road).

Advanced Dressing Station.—T.17.d.central, sh. 62D.

Main Dressing Station.—M.36.c.9.8., sh. 62D. (Chateau).

Method of Evacuation.

Regimental.

The Regtl. Medical Service, including extra regtl. stretcher bearers, will be responsible to clear wounded to the R.A.Ps. In the event of an advance, when no definite R.A.Ps. can be established, stretcher cases must be collected at certain definite

points, preferably on a road where wheeled transport will be able to reach them. All such collections of wounded must be notified to the Field Ambulance personnel. Walk ng wounded must be directed to the Forward A.D.S., at U.26.central, sh. 62D. As the advance progresses, regtl. M.Os. must make use of any old German dressing stations available. Former R.A.Ps. will be taken over by Field Ambulance personnel, and will become Car Loading Posts or A.D.Ss.

Field Ambulance.

The O.C. No. 8 Cdn. Fld. Amb. will be in charge of the evacuation of wounded from the immediate front area, with Headquarters at U.26.central, sh. 62D. Motor ambulance cars wil be worked as far forward as the roads permit. Horsed ambulance wagons will be used to convey walking wounded from the Forward A.D.S. Returning empty lorries from the front area will be used to transport walking wounded to the Walking Wounded M.D.S. at M.36.c.9.8., sh. 62D. (Chateau). Authority for Field Ambulance Medical Officers to stop returning empty lorries and load walking wounded into them, for transport to the M.D.S. will be obtained.

4/3/4. Colonel,
5–8–18. *A.D.M.S. 3rd Canadian Division.*

Copies to:—All concerned.

Secret.

INSTRUCTIONS TO FIELD AMBULANCES.

I. *No. 8 Canadian Field Ambulance.*

The O.C. No. 8 Cdn. Fld. Amb. will be responsible for collection of wounded from the whole divisional front and their delivery to the A.D.Ss. He will have at his disposal, the bearer divisions of all three Field Ambulances.

Bearers. (*a*) The Bearer Divisions of Nos. 9 and 10 Cdn. Ambs., will be held in readiness to proceed to A.D.S. at T.17.d.Central, sheet 62d., upon one hour's notice. They will carry 24 hours' rations, after which time they will be rationed by No. 8 Cdn. Fld. Amb. No. 8 Cdn. Fld. Amb. will obtain rations at once in anticipation of this move.

Horsed Ambulance Wagons. (*b*) Horsed ambulance wagons of Nos. 9 and 10 Cdn. Fld. Ambs. will report to Lt.-Col. T. M. Leask, D.S.O., at Chateau, M.36.c.9.8., sheet 62D., by 6.00 p.m. tomorrow August 7th, carrying 24 hours rations and forage, after which time they will be rationed by No. 8 Cdn. Fld. Amb.

Motor Ambulance Cars.

(*c*) One motor ambulance car will be retained at the headquarters of each, Nos. 9 and 10 Cdn. Fld. Ambs. All other cars will report to Lt.-Col. T. M. Leask, D.S.O., at Chateau, M.36.c.9.8., sheet 62D., by 6.00 p.m. tomorrow August 7th. They will carry 24 hours rations, after which time they will be rationed by No. 8 Cdn. Fld. Amb.

Wheeled Stretchers.

(*d*) The wheeled stretchers of Nos. 9 and 10 Cdn. Fld. Ambs. will be delivered to O.C. No. 8 Cdn. Fld. Amb. at Chateau, M.36.c.9.8., sheet 62D., by 6.00 p.m. tomorrow, August 7th.

Cookers.

(*e*) Two Regimental Cookers will be stationed in the Eastern edge of Bois de Gentelles. These will be pushed forward as soon as the tactical situation permits, to the Gentelles A.D.S. and later to DOMART A.D.S. They will supply hot food for wounded.

Surplus Blankets and Stretchers.

(*f*) Surplus blankets and stretchers will be held in charge of No. 8 Cdn. Fld. Amb., at Chateau, M.36.c.9.8., sheet 62D.

II. *No. 9 Canadian Field Ambulance.*

(*a*) O.C. No. 9 Cdn. Fld. Amb. will be in charge of Asylum Grounds, i.e.

(i) Allotting of billeting accommodation to Field Ambulances of other divisions.

(ii) To be responsible that transport wagons are properly parked and camouflaged within Asylum grounds, and horses picketed outside the Asylum grounds.

(iii) Allotting of sufficient hospital accommodation for sick of each Division, and for slightly wounded, gassed cases, etc.

(*b*) The Asylum is to be used for the reception of gassed cases, slightly wounded, self-inflicted wounds, scabies, infectious cases, and mild sick.

There will be an ambulance or section of an ambulance from each of the 1st, 2nd, and 3rd Canadian Divisions located in the asylum for duty as follows:—

Amb. of 1st Cdn. Div.—
Slightly wounded of all divisions.
Sick of 1st Cdn. Division.

Amb. of 2nd Cdn. Div.—
Gassed cases of all divisions.
Sick of 2nd Cdn. Division.

Amb. of 3rd Cdn. Div.—

Self-inflicted wounds.
Scabies.
Infectious cases.
Sick of 3rd Cdn. Division.

Sick of 4th Cdn. Division and other formations will be admitted by any of the above units.

Records.

(*c*) The 9th Canadian Field Ambulance will keep a common A. & D. Book for all patients admitted. To assist in this work, two clerks will be detailed from each of 1st, 2nd, and 4th Cdn. Divisions. These clerks will be responsible for forwarding all necessary information to their A.D.M.S. No. 9 Cdn. Field Ambulance will notify 3rd Canadian Divisional Units of evacuations, as usual.

O.C. No. 9 Cdn. Fld. Ambulance will notify D.D.M.S., Canadian Corps, direct, by 6 a.m., 5 p.m. and 9 p.m. the numbers of wounded only.

(i) Admitted, of each division, in the intervals between 6 a.m. and 5 p.m., 5 p.m. and 9 p.m., and 9 p.m. and 6 a.m. the figures of each division being forwarded in one total: (Officers, French Troops and Prisoners of War to be distinguished).

(ii) Total remaining in the Corps, distinguishing lying and sitting cases.

(iii) The following will be added to the 6 a.m. telegram daily: Numbers of shell-shock and gassed cases admitted during past twenty-four hours and numbers remaining at 6 a.m. Officers and Other Ranks, Shell Shock or Gassed to be shown separately.

Specimen.

"D.D.M.S. Canadian Corps. No. 00 3rd AAA Ad since 6 a.m. X Division Off 10 O.R. 120 French 2 Germans 3 AAA Y Division Off 12 O.R. 187 Germans 2 AAA Z Division Nil AAA Rg Lying 78 Sitting 120 AAA. O.C., No. 9 Cdn. Fld. Ambulance."

No. 9 Cdn. Fld. Ambulance will notify A.D.M.S. 3rd Cdn. Divn. at 9 a.m. and 5 p.m. daily of 3rd Canadian Division admissions and evacuations, wounded, Officers by name and unit, O.Rs. by units.

(*d*) For instructions re Horsed Ambulances, Motor Ambulances and Wheeled Stretchers, see para. 1, sub-paras. *b*, *c* and *d*.

III. *No. 10 Canadian Field Ambulance.*

(*a*) Lt.-Col. T. M. Leask, D.S.O., will be in charge of the evacuation by motor and horsed ambulances from the A.D.Ss. to the M.D.S. He will have at his disposal the motor cars, horsed ambulances and some lorries of the 3rd Canadian Division, lorries returning empty will also be utilized when possible. He will at once notify this office where his headquarters will be.

(*b*) One tent sub-division of No. 10 Cdn. Fld. Amb. with equipment, will report to O.C. No. 1 Cdn. Fld. Amb. at the M.D.S. (Chateau) M.36.c.9.8., Sheet 62D., at an hour to be arranged direct between Os. C. Nos. 1 and 10 Cdn. Fld. Ambces. They will be rationed from No. 10 Cdn. Fld. Amb. This section must include four clerks, who will be placed at the disposal of O.C., No. 1 Cdn. Fld. Amb. to assist in keeping records. These clerks will also be responsible for notifying A.D.M.S. 3rd Canadian Division of number of 3rd Canadian Division wounded passing through the M.D.S. Officers by name and unit, Other Ranks by units. This return will be forwarded at 9.00 a.m. and 5.00 p.m. daily, direct to A.D.M.S. Office.

(*c*) The balance of No. 10 Cdn. Fld. Amb. will be held in readiness to push forward and open an A.D.S. or assist dressing stations already operating.

(*d*) For instructions re Horsed Ambulances, Motor Ambulances and Wheeled Stretchers, see Para. 1, sub-paras. b, c and d.

IV. *General Instructions.*

(*a*) A.T. Serum will be given at the M.D.S. (Chateau) M.36.c.9.8., Sh. 62D., and at the Asylum.

(*b*) All wounded prisoners to be searched by Fld. Ambs. at M.D.S.

(*c*) Red Cross Stores and reserve dressings will be held at Asylum.

(*d*) O.C. No. 1 Cdn. Fld. Amb. will be in charge of the M.D.S. at Chateau, M.36.c.9.8., Sh. 62D., for stretcher cases and walking wounded.

(*e*) Greely's Hypo Units and Red Cross Flags are available at A.D.M.S. office.

Field Ambulances acknowledge.

4/3/5.
dated 7–8–18.

Colonel,
A.D.M.S., 3rd Canadian Division.

Secret.

Notes on the Medical Situation in Case of a Rapid Advance.

Regimental.

The Regimental Medical Officer must always keep in touch with the O.C. of his battalion, and keep himself informed as to the situation with the fighting troops. There must be a definite understanding between his O.C. and himself, that in the event of the battalion headquarters being moved forward, word will be sent to the R.A.P. The Medical Officer will immediately push forward with his equipment, and locate in a spot which will be convenient as well as protected as much as possible. It may not always be possible to get a dugout, particularly if the advance is rapid and over considerable country, but he must make the best of local conditions and let his location be known to his battalion and to the Field Ambulance A.D.S. One Field Ambulance stretcher squad of four men should accompany the Regimental M.O. to his new site. These men will be a connecting link with the A.D.S. Company Officers and regtl. stretcher bearers should be instructed to collect wounded into groups in protected localities, as near as possible to main roads. Some distinguishing sign or mark should be left, in order that the Field Ambulance bearers will have no difficulty in locating these nests of wounded.

Any communications sent to the Field Ambulance, if at all possible, must be in writing and when necessary map locations given.

Field Ambulances.

The Officer i/c the Advanced dressing stations must at all times keep in touch with the R.A.P. In some cases the Regimental M.O. will perhaps be unable to keep in touch with those further back. It is therefore very important for the Field Ambulance personnel to make every effort to keep open the communications with the Regimental M.Os. and their Aid Posts.

When a Regtl. Medical Officer moves forward, the officer i/c the Advanced Dressing station will send sufficient personnel to take over the site of the R.A.P. as an advanced dressing station.

As the advance progresses, all personnel and supplies should be moved forward to this new site, leaving the original advanced dressing station to be taken over by personnel from the main dressing station, or from another unit.

The Field Ambulance Officers must scout out all available roads in their immediate forward area. It is very necessary that horsed and motor ambulances be pushed as far forward as possible. Paths for wheeled stretchers must also be located,

and every effort made to use the wheeled transport in order to lessen the carry for the bearers.

As soon as the situation allows, the Main Dressing Station will move up and take over the Advanced Dressing Station.

Divisional Medical Units.

In the event of a retirement by the enemy and an immediate advance by us No. 8 Cdn. Fld. Amb. will continue to serve the front. The 9th Cdn. Fld. Amb. will remain at the Asylum. The 10th Cdn. Fld. Amb. at present being kept parked in order to be available to push forward at very short notice, will push right through and serve the advancing troops.

POINTS TO BE THOUGHT OUT AND ARRANGEMENTS MADE.

(1) *Rations.*—At least 24 hours rations and the iron ration must be carried. This latter must be closely checked in all units. Quartermasters must make provision for feeding the men in the front area.

(2) *Water.*—The Regtl. Medical Officer must examine suspicious water in the new forward area; particular attention being paid to metallic poisons (arsenic). He must send ahead his trained water-duty man to make examinations and bring back samples for verification by M.O. All men must be strictly cautioned against drinking water in the new area until it has been examined and chlorinated.

Quartermasters of Field Ambulances must see that the Advanced Dressing Station is well supplied with an abundance of chlorinated water. This will be used by the bearers, and in many cases for troops passing through.

All water in the new area which had been found to have been poisoned, should be so labelled.

Water which has been examined and found clear of metallic poisons should be labelled "Examined and fit for drinking with chlorination."

Water not examined should be so labelled.

(3) *Surplus Kits and Extra Equipment.*—Units will move with mobilization equipment only; this must be strictly adhered to. All surplus kit and equipment will be deposited at No. 9 Cdn. Fld Amb. (Asylum); a few men of this unit will be left as a guard.

(4) *Transport.*—The Os.C. Field Ambulance units will take particular care that all transport is in the very best possible shape to take the road.

4/3/3.
5/8/18.

Colonel,
A.D.M.S., 3rd Canadian Division.

Operation Order No. 42

BY

Lt.-Col. A. S. Donaldson, D.S.O., C.A.M.C.,
Commanding No. 3 Canadian Field Ambulance,
1st Canadian Division.

7th of August, 1918. Ref. Map Sheet 62B.

1. The 3rd Cdn. Fld. Ambulance will take over the clearing of the line after the 3rd Cdn. Inf. Bde. have reached their objective.

The clearing will be under the direction of Lt.-Col. A. S. Donaldson.

2. The Motor Soup Kitchen will proceed to the Corps Main Dressing Station at M.36.c.6.8., Sheet 62B., and report to the O.C., No. 1 Cdn. Fld. Ambulance.

3. "B" and "C" Section Tent Sub-divisions, and 4 clerks will report to the O.C., No. 1 Cdn. Fld. Ambulance at the Corps Main Dressing Station. These Tent Sub-divisions will be under command of Capt. O'Reilly, and the clerks under command of Sergt. L. B. Campbell, and will take 24 hours' rations with them. They will march off at 9 p.m. on the night of the 7th August.

4. Capt. Morrison, and 50 bearers of No. 1 Cdn. Fld. Ambulance will be placed under the command of No. 3 Cdn. Fld. Ambulance to assist in the clearing of the forward area. They will be responsible for the R.A.P. of the 10th C.I. Bn. They will report to the O.C., No. 3 Cdn. Fld. Ambulance at a place and time to be notified later.

5. "A" Section bearers, under command of Capt. Denyes, will be responsible for clearing the 7th C.I. Bn. R.A.P.

6. "B" Section bearers, under command of Capt. Rehill, will be responsible for clearing the 8th Bn. R.A.P.

7. Three squads of bearers from each of the above Sections will proceed forward at 9.30 p.m. tonight, under their respective Officers, to locate and report to the M.Os. of these different Battalions.

These Officers, in charge of bearer squads, will at all times keep up liaison with the A.D.S.

8. The Section bearers will take 24 hours' rations with them.

9. Major GIBSON, in command of "A" Section, will have charge of the A.D.S., which will also be the Headquarters of the O.C., 3rd Cdn. Fld. Ambulance. Capt. VEITCH and Capt. Ross will report to Major GIBSON for duty at the A.D.S.

The A.D.S. will be that one last occupied by the 2nd Cdn. Fld. Ambulance.

10. As the advance proceeds, the A.D.S. will be moved forward as far as possible as the tactical situation permits.

11. "C" Section bearers, under command of Capt. VEITCH, will be held in reserve at the A.D.S., and will be prepared to go forward to assist at any of the R.A.Ps. requiring assistance.

12. Collecting Posts, under Capt. LEES and Capt. CAMERON will be established in suitable and protected positions on roads suitable for Horsed Ambulance wagons, or in HANGARD, AUBERCOURT or IGNAUCOURT, as the situation permits. These points will move forward, as the situation permits, reporting any move to the A.D.S.

13. Horsed Ambulance wagons will be used as far forward as possible, and clear from Collecting Posts to A.D.Ss. Officers at Collecting Posts will take surgical haversacks with them.

14. Motor Ambulances will clear from A.D.S. to Corps Main Dressing Station, when possible along VALLEY ROAD.

15. G. S. Wagon, carrying A.D.S. equipment, will proceed forward tonight. A water cart will accompany to A.D.S. Batmen will accompany all Officers, and act as runners.

16. Other ranks will take forward ground sheets, haversacks and water bottles.

17. Capt. MURPHY, C.A.P.C., and Capt. WILSON, C.A.D.C., will report to O.C., No. 1 Cdn. Fld. Ambulance, and act under his instructions.

18. The Transport Lines will be moved on the night of the 7th/8th, from the BOIS DE BOVES to the Lunatic Asylum S.W. of the *A* in AMIENS.

(Sgd.) Lt.-Col., C.A.M.C.,
Officer Commanding,
No. 3 Canadian Field Ambulance.

APPENDIX II.

ROLL OF OFFICERS WHO SERVED WITH THE CANADIAN CORPS DURING THE LAST HUNDRED DAYS.

The following is a list of Officers, Medical and Dental, who were present with the Canadian Corps on the 8th of August, 1918. From that date until the Armistice, there was a certain wastage in officers, owing to the fact that some were evacuated to the base on account of wounds or illness, and others were recalled for duty in England, or in hospitals on the Lines of Communication.

The above officers were, of course, replaced by reinforcements from the Base.

The arrivals and departures of officers are shown at the end of each divisional list. The exact units to which the new officers, upon arrival, were posted, are not shown, as the usual procedure was to post officers to field ambulances for a few weeks, after which they took their turn at regimental duty.

1st Division.

Colonel R. P. Wright, C.M.G., D.S.O., A.D.M.S.
Major A. L. Jones, O.B.E., M.C., D.A.D.M.S.

No. 1 Field Ambulance.

Lt.-Col. G. J. Boyce, D.S.O.
Major R. J. Gardiner, M.C.
Major E. L. Warner.
Capt. D. A. Morrison, M.C. (Bar).
Capt. R. H. Thomas, M.C.
Capt. L. D. Densmore, M.C.
Capt. J. Z. Gillies.
Capt. D. St. C. Campbell.
Capt. J. G. D. Campbell.
Capt. H. A. Stewart, C.A.D.C.
Hon. Capt. and Qmr. J. S. Walker.

No. 2 Field Ambulance.

Lt.-Col. J. H. Wood, D.S.O.
A./Major H. M. Barrett, M.C.
Capt. R. D. Moyle, M.C.
Capt. J. Graham.
Capt. R. E. A. Weston, M.C.
Capt. J. A. McCarthy.
Capt. F. MacN. Johnson, M.C.
Capt. C. S. MacDougall.
Capt. J. W. Reynolds, C.A.D.C.
Hon. Capt. and Qmr. W. Keith, M.M.

No. 3 Field Ambulance.

Lt.-Col. A. S. Donaldson, D.S.O. (Bar).
Major G. H. R. Gibson, D.S.O.
Capt. F. W. Lees, M.C. (Bar).
Capt. G. M. Ross.
Capt. H. McL. Cameron, M.C.
Capt. A. H. Veitch, M.C.
Capt. J. S. Wray.
Capt. G. F. Denyes.
Capt. J. R. Rehill.
Capt. F. A. O'Reilly.
Capt. E. H. Wilson, C.A.D.C.
Hon. Capt. and Qmr. M. J. Morison.

Regimental Units.

Capt. W. H. Scott, M.C., 1st Bn.
Capt. J. E. Barry, M.C. (Bar), 2nd Bn.
Capt. A. E. MacDonald, M.C., 3rd Bn.
Capt. A. G. Fleming, M.C., 4th Bn.
Capt. T. Whitmore, 5th Bn.
Major R. M. Filson, 7th Bn.
Capt. F. T. Campbell, M.C. (Bar), 8th Bn.
Capt. A. Y. McNair, M.C., 10th Bn.
Capt. H. A. Cochrane, M.C., 13th Bn.
Capt. A. Keay, 14th Bn.
Capt. R. D. MacKenzie, M.C., 15th Bn.
Capt. J. P. S. Cathcart, M.C., 16th Bn.
Capt. H. A. Culham, 1st Bde. C.F.A.
Capt. J. Keeley, 2nd Bde. C.F.A.
Major T. F. O'Hagan, M.C., 1st D.A.C.
Capt. A. M. Jeffrey, 1st Bn. C.E.
Capt. G. F. Seaborn, 2nd Bn. C.E.
Capt. G. Wilson, 3rd Bn. C.E.
Capt. J. M. Livingston, 1st Bn. C.M.G.C.
Capt. C. K. Dowson, 1st Div. Train.

Departures.

Capt. D. St. C. Campbell, evacuated wounded.
Capt. T. Whitmore, evacuated wounded.
Capt. J. P. S. Cathcart, M.C., evacuated wounded.
Hon. Capt. and Qmr. M. J. Morison, evacuated sick.
Capt. J. S. Wray, evacuated sick.
Capt. F. A. O'Reilly, to Base.
Capt. G. F. Denyes, evacuated sick.
Capt. H. M. Cameron, M.C., evacuated wounded.
Capt. H. A. Culham, killed in action.
Capt. E. H. Wilson, C.A.D.C., to England.
Capt. J. Graham, to England.
Capt. N. A. Christie, to 3rd Div.
Capt. G. F. Seaborn, evacuated sick.

Arrivals.

Capt. J. P. O'Shea.
Capt. W. A. Lowe.
Capt. P. J. O'Dwyer.
Major C. T. Wallbridge.
Capt. A. G. Thompson.
Capt. C. R. Donovan.
Capt. C. E. Frain.
Capt. N. A. Christie.
Capt. J. W. Reddick.
Capt. W. R. Stackhouse.
Capt. E. M. Blair.
Capt. D. A. P. McKay, C.A.D.C.
Capt. W. C. Lowry.

2ND DIVISION.

Colonel R. M. Simpson, C.B.E., D.S.O., A.D.M.S.
Major T. A. Lomer, D.S.O., D.A.D.M.S.

No. 4 Field Ambulance.

Lt.-Col. R. H. MacDonald, D.S.O., M.C.
Major G. W. Treleaven, D.S.O., M.C.
Major T. H. Bell, M.C.
Capt. E. Douglas, M.C.
Capt. G. W. Lougheed, M.C.
Capt. G. R. Baby, M.C.
Capt. J. D. Stewart.
Capt. G. W. Grant, M.C.
Capt. N. D. Black, M.C.
Major J. F. Blair, C.A.D.C.
Hon. Capt. and Qmr. S. G. Pearson.

No. 5 Field Ambulance.

Lt.-Col. D. P. Kappele, D.S.O. (Bar).
Major J. F. Burgess, O.B.E.
Major H. W. McGill, M.C.

Capt. H. Hart, M.C. (Bar).
Capt. F. F. Dunham, M.C. (Bar).
Capt. H. C. Moses, M.C. (Bar).
Capt. J. K. Mossman, M.C.
Capt. D. R. Wark.
Capt. G. P. Parker.
Capt. W. J. Kirby.
Major O. A. Elliott, C.A.D.C.
Hon. Capt. and Qmr. F. Clark.

No. 6 Field Ambulance.

Lt.-Col. T. J. F. Murphy, D.S.O. (Bar).
Major R. H. M. Hardisty, D.S.O., M.C.
Major S. G. Ross, D.S.O., M.C.
Major D. W. McKechnie, D.S.O.
Major W. D. B. Kennedy, M.C.
Capt. A. A. Parker, M.C.
Capt. M. A. McKechnie, M.C.
Capt. N. M. Guiou.
Capt. H. Black.
Capt. C. M. Sellery.
Capt. J. G. MacNeill, M.C.
Major G. S. Cameron, C.A.D.C.
Hon. Lieut. and Qmr. J. B. Riddell.

Regimental Units.

Capt. J. Leavitt, 18th Bn.
Capt. H. C. Allison, M.C., 19th Bn.
Capt. C. M. Finlayson, M.C. (Bar), 20th Bn.
Capt. E. A. McCusker, M.C., 21st Bn.
Capt. J. R. A. Marin, M.C. (Bar), 22nd Bn.
Capt. R. B. Jenkins, M.C., 24th Bn.
Capt. J. D. H. W. Barnett, 25th Bn.
Capt. A. Hines, M.C., 26th Bn.
Capt. D. Corcoran, 27th Bn.
Capt. H. C. Hall, M.C., 28th Bn.
Capt. H. F. Preston, M.C., 29th Bn.
Capt. F. McG. Petrie, M.C., 31st Bn.
Capt. A. R. Campbell, M.C., 5th Bde. C.F.A.
Capt. W. L. Muir, 6th Bde. C.F.A.
Major G. A. Ings, 2nd D.A.C.
Major F. B. Carron, 4th Bn. C.E.
Capt. C. M. MacKay, 5th Bn. C.E.
Capt. B. M. Bayly, 6th Bn. C.E.
Capt. J. A. Stewart, 2nd Bn. C.M.G.C.
Capt. C. R. Worthington, 2nd Div. Train.

75346—18½

Departures.

Capt. M. A. McKechnie, M.C., died of wounds.
Capt. J. D. H. W. Barnett, evacuated wounded.
Capt. E. A. McCusker, M.C., evacuated wounded.
Major G. S. Cameron, C.A.D.C., to England.
Col. T. J. F. Murphy, D.S.O. (Bar), to England.
Major F. B. Carron, to England.
Capt. H. Hart, M.C. (Bar), to 4th Div.
Capt. E. Douglas, M.C., to 4th Div.
Capt. G. R. Baby, M.C., to England.
Major S. G. Ross, D.S.O., M.C., to England.
Capt. J. D. Stewart, evacuated wounded.
Capt. J. G. MacNeill, M.C., killed in action.
Capt. A. A. Parker, M.C., died of wounds.
Lt.-Col. D. P. Kappele, D.S.O. (Bar), evacuated wounded.
Major J. F. Burgess, O.B.E., evacuated wounded.
Hon. Capt. and Qmr. F. Clark, evacuated wounded.
Major G. A. Ings, to Forestry Corps.
Capt. B. M. Bayly, to Corps Troops.

Arrivals.

Capt. W. W. Barraclough.
Capt. A. V. Greaves.
Capt. F. S. Parney.
Capt. P. F. McCue.
Capt. T. W. Ballantyne.
Capt. C. H. P. G. Benning.
Capt. F. C. Wilson.
Capt. G. R. Scott.
Capt. A. W. Wakefield.
Capt. G. C. Graham.
Capt. E. Craig.

3rd Division.

Col. A. E. Snell, C.M.G., D.S.O., A.D.M.S.
Major R. M. Gorssline, D.S.O., D.A.D.M.S.

No. 8 Field Ambulance.

Lt.-Col. E. R. Selby, D.S.O.
Major W. H. Scott, M.C.
Major W. G. Cosbie, M.C.
Capt. J. F. S. Marshall, O.B.E., M.C.
Capt. A. L. McQuarrie.
Capt. D. C. Malcolm, M.C.
Capt. L. P. Churchill, M.C.
Capt. J. T. Green.
Capt. J. B. Hanley.
Capt. F. D. Knight, C.A.D.C.
Hon. Capt. and Qmr. J. F. Sparrow.

No. 9 Field Ambulance.

Lt.-Col. C. W. Vipond, D.S.O.
Major B. E. Kelly, D.S.O.
Major J. E. McAskill, M.C.
Capt. W. G. Fraser.
Capt. M. W. Thomas.
Capt. W. F. Abbott, M.C.
Capt. J. E. Affleck, M.C. (Bar).
Capt. S. G. Baldwin, M.C.
Capt. B. Cannon.
Capt. J. F. Morrison, C.A.D.C.
Hon. Capt. and Qmr. T. E. Heron.

No. 10 Field Ambulance.

Lt.-Col. T. McC. Leask, D.S.O. (Bar).
Major H. W. Wadge, M.C. (Bar).
Major J. A. Briggs, M.C.
Capt. H. C. Davis, M.C. (Bar).
Capt. C. W. Johnston, M.C.
Capt. R. W. Phillips.
Capt. E. C. Harris.
Capt. A. McA. Blakely.
Capt. L. H. Fraser, M.C.
Capt. G. A. Petrie.
Capt. G. A. Munroe, C.A.D.C.
Hon. Capt. and Qmr. J. E. Tulloch, M.C.

Regimental Units.

Capt. D. D. Freeze, M.C., R.C.R.
Capt. W. D. Cruikshank, P.P.C.L.I.
Capt. W. Hale, M.C. (Bar), 42nd Bn.
Capt. H. G. Young, D.S.O., M.C., 49th Bn.
Capt. J. S. Hudson, M.C., 1st C.M.R.
Capt. W. McC. Robb, M.C., 2nd C.M.R.
Capt. N. Monk, 4th C.M.R.
Capt. H. B. MacEwen, M.C., 5th C.M.R.
Major W. J. MacKenzie, 43rd Bn.
Capt. F. Munroe, M.C., 52nd Bn.
Capt. J. A. Dougan, M.C., 58th Bn.
Capt. T. A. Briggs, M.C., 116th Bn.
Capt. L. C. Hutson, 9th Bde. C.F.A.
Capt. C. T. Lewis, M.C., 10th Bde. C.F.A.
Capt. J. L. Walker, 3rd D.A.C.
Capt. A. E. Blackett, 7th Bn. C.E.
Capt. W. G. Robertson, 8th Bn. C.E.
Capt. E. W. Nolan, 9th Bn. C.E.
Capt. L. T. Ainley, 3rd Bn. C.M.G.C.
Capt. W. N. Cochran, 3rd Div. Train.

Departures.

Capt. A. L. McQuarrie, to Base.
Capt. J. T. Green, to Base.
Capt. W. N. Cochran, evacuated sick.
Capt. J. F. Morrison, C.A.D.C., to England.
Col. A. E. Snell, C.M.G., D.S.O., to D.D.M.S. Corps.
Capt. A. E. Blackett, to England.
Major R. M. Gorssline, D.S.O., to D.A.D.M.S. Corps.
Capt. L. H. Fraser, M.C., to 3rd Cav. Bde.
Capt. L. C. Hutson, evacuated sick.
Capt. A. McA. Blakely, evacuated wounded.
Major W. H. Scott, M.C., evacuated sick.
Capt. W. G. Fraser, to Base.
Capt. R. W. Phillips, evacuated sick.
Capt. T. A. Briggs, M.C., evacuated sick.
Capt. E. W. Nolan, evacuated sick.
Capt. B. Cannon, evacuated sick.
Capt. H. G. Young, D.S.O., M.C., evacuated wounded.

Arrivals.

Capt. J. A. Munro.
Capt. G. K. Shirton.
Capt. W. F. Baird, C.A.D.C.
Lt.-Col. C. P. Templeton, C.B.E., D.S.O.
Capt. J. F. Adams.
Major E. L. Warner.
Capt. A. C. McGlennon.
Capt. N. A. Christie.
Capt. E. M. Blair.
Capt. A. S. Lamb.
Capt. J. S. Sutherland.
Capt. C. D. Farquharson.
Capt. B. Cahanna.
Capt. T. Keay.
Capt. T. R. Brownridge.
Capt. H. G. Craig.
Capt. H. G. Young, D.S.O., M.C.

4TH DIVISION.

Col. C. A. Peters, D.S.O., A.D.M.S.
Major G. G. Greer, M.C., D.A.D.M.S.

11th Field Ambulance.

Lt.-Col. H. H. Moshier.
Major E. A. Neff.
Capt. D. G. K. Turnbull, M.C. (Bar).
Capt. C. Kerr, M.C.
Capt. J. T. Stirling, M.C.
Capt. J. A. Pare, M.C.
Capt. A. N. Aitken.
Capt. T. G. MacDonald.
Capt. R. H. Arthur.
Capt. E. A. Grant, C.A.D.C.
Hon. Capt. and Qmr. C. F. Currie.

12th Field Ambulance.

Lt.-Col. P. G. Bell, D.S.O.
Major G. W. Hall, D.S.O.
Major F. C. Clarke, M.C.
Capt. J. G. Shaw, M.C. (Bar).
Capt. S. E. Holmes.
Capt. J. C. Maynard.
Capt. L. C. Reid, M.C.
Capt. A. R. Hagerman, M.C.
Capt. P. V. Graham.
Capt. W. N. McCormick.
Capt. R. J. Godfrey, C.A.D.C.
Hon. Capt. and Qmr. J. A. Brook.

13th Field Ambulance.

Lt.-Col. W. H. K. Anderson, D.S.O.
Major S. Paulin, D.S.O.
Capt. W. C. Walsh, M.C.
Capt. A. H. Wallace, M.C.
Capt. G. A. Smith, M.C. (Bar).
Capt. L. C. Palmer, M.C. (Bar).
Capt. F. G. Banting, M.C.
Capt. G. C. Paine.
Capt. R. B. Anderson.
Capt. E. F. Armstrong, C.A.D.C.
Hon. Capt. and Qmr. T. Barclay, M.C.

Regimental Units.

Capt. C. F. Atkinson, M.C., 44th Bn.
Capt. W. C. Morgan, M.C., 46th Bn.
Capt. J. A. MacKenzie, 47th Bn.
Capt. E. T. Curran, 50th Bn.
Capt. F. B. Day, M.C., 54th Bn.
Capt. B. S. Hutcheson, V.C., M.C., 75th Bn.
Capt. A. F. Argue, M.C., 87th Bn.
Capt. H. Dunlop, M.C., 102nd Bn.
Capt. N. McL. Halkett, M.C., 38th Bn.
Capt. J. H. Blair, M.C., 72nd Bn.
Capt. J. C. Eager, M.C., 78th Bn.
Capt. M. G. Brown, M.C., 85th Bn.
Capt. C. G. Bell, 3rd Bde. C.F.A.
Capt. C. J. McKinnon, 4th Bde. C.F.A.
Capt. O. H. Singleton, 4th D.A.C.
Capt. A. McMillan, 10th Bn. C.E.
Capt. E. E. Locke, 11th Bn. C.E.
Capt. M. J. Moher, 12th Bn. C.E.
Capt. W. J. Laurie, 4th Bn. C.M.G.C.
Capt. T. D. Bennett, M.C., 4th Div. Train.

Departures.

Capt. J. C. Eager, M.C., evacuated wounded.
Capt. A. H. Wallace, M.C., evacuated wounded.
Lt.-Col. H. H. Moshier, killed in action.
Capt. L. C. Reid, M.C., evacuated sick.
Capt. J. A. MacKenzie, evacuated wounded.
Capt. R. H. Arthur, evacuated sick.
Capt. S. E. Holmes, evacuated wounded.
Capt. W. C. Walsh, M.C., evacuated wounded.
Capt. A. V. Greaves, to 3rd Div.
Capt. R. B. Anderson, to Forestry Corps.
Capt. A. Ross, M.C., killed in action.
Capt. F. G. Banting, M.C., evacuated wounded.
Capt. W. C. Morgan, M.C., evacuated wounded.
Capt. D. G. K. Turnbull, M.C. (Bar), evacuated wounded.
Capt. J. T. Stirling, M.C., evacuated sick.
Capt. N. H. Little, evacuated wounded.
Capt. F. B. Day, M.C., evacuated wounded.
Capt. A. F. Argue, M.C., evacuated wounded.
Capt. F. N. K. Falls, evacuated sick.
Capt. A. McMillan, to Base.
Capt. E. T. Curran, evacuated wounded.
Capt. H. Dunlop, M.C., killed in action.
Capt. P. V. Graham, evacuated sick.
Capt. W. J. Laurie, to Corps Troops.
Capt. F. S. Parney, to 4th Cdn. Fld. Amb.
Capt. A. R. Hagerman, M.C., evacuated wounded.

Arrivals.

Capt. F. N. K. Falls.
Capt. F. S. Parney.
Capt. A. V. Greaves.
Capt. H. R. Edwards.
Capt. L. S. Foster.
Capt. H. Hart, M.C. (Bar).
Capt. W. C. Pratt.
Capt. N. H. Little.
Capt. A. Ross, M.C.
Capt. R. A. Dowd.
Capt. R. F. Price.
Capt. T. A. Carpenter.
Capt. H. H. Perry.
Capt. T. B. Edmison.
Capt. H. A. Elliot.
Capt. O. J. S. Little.
Capt. W. H. Hicks.
Capt. C. H. Church.
Capt. W. E. L. Sparks.
Capt. C. B. Corbett.
Major E. Douglas, M.C.
Capt. R. D. Cowan.
Capt. D. G. K. Turnbull, M.C. (Bar).

CORPS TROOPS.

Col. A. E. Ross, C.B., C.M.G., D.D.M.S.
Lt.-Col. C. P. Templeton, C.B.E., D.S.O,. D.A.D.M.S.
Major M. H. Allen, attached D.D.M.S. office.
Major G. S. Mothersill, D.S.O., Asst. Insp. Drafts.
Capt. D. Law, i/c Red Cross Stores.

No. 14 Field Ambulance.

Lt.-Col. G. G. Corbet.
Major W. L. Hutton.
Major R. H. McGibbon.
Capt. V. D. Davidson.
Capt. R. W. Digby.
Capt. V. E. Henderson.
Capt. J. F. Houston.
Capt. O. E. Kennedy.
Capt. C. A. Rae.
Hon. Capt. and Qmr. A. H. Coates.
Capt. R. H. Cleveland, C.A.D.C.
Major J. A. MacMillan, Corps Eye Clinic.

Corps Dental Laboratory.

Major C. N. Schnarr, C.A.D.C.
Capt. J. S. Girvin, C.A.D.C.
Capt. N. S. Bailey, C.A.D.C.
Capt. R. C. H. Staples, C.A.D.C.
Capt. J. T. Adam, C.A.D.C.
Capt. C. Nicholson, C.A.D.C.
Capt. R. Alward, C.A.D.C.

Regimental Units.

Capt. A. B. Ritchie, Cdn. Light Horse.
Capt. R. Goulden, 8th Bde. C.F.A.
Capt. H. W. Johnston, 13th Bde. C.F.A.
Capt. J. M. Fowler, 14th Bde. C.F.A.
Major O. L. Berdan, 5th D.A.C.
Capt. E. H. Whelpley, M.C., 3rd Bde. C.G.A.
Capt. E. J. Dickinson, M.C., 1st M.M.G. Bde.
Capt. R. C. Weldon, M.C. (Bar), 2nd M.M.G. Bde.
Capt. J. S. Sutherland, Corps Troops M.T. Co.
Capt. A. B. Chapman, M.C., No. 1 Sanitary Sec.
Capt. W. A. Richardson, O.B.E., No. 2 Sanitary Sec.
Major H. Orr, O.B.E., No. 3 Sanitary Sec.
Capt. F. D. Sinclair, No. 4 Sanitary Sec.
Capt. D. W. Gray, No. 5 Sanitary Sec.
Capt. D. R. Fletcher, Labour Group.
Capt. W. H. T. Baillie, Corps Reinf. Camp.
Capt. A. G. Ley, 1st Div'l Wing.
Capt. H. K. Neilson, 2nd Div'l Wing.
Capt. J. S. Douglas, 3rd Div'l Wing.
Capt. W. Cole, 4th Div'l Wing.
Capt. G. E. Binkley, M.G. Depot.
Capt. W. H. Lavell, Corps School.

Departures.

Col. A. E. Ross, C.B., C.M.G., to D.M.S. Canadians.
Lt.-Col. C. P. Templeton, C.B.E., D.S.O., to 3rd Div.
Capt. D. Law, to England.
Capt. R. Goulden, evacuated wounded.
Capt. J. S. Girvin, C.A.D.C., to England.
Capt. W. Cole, to England.
Major B. L. Neily, C.A.D.C., to England.
Capt. D. W. Gray, evacuated sick.
Capt. J. S. Douglas, to 4th Div.
Capt. J. S. Sutherland, to 3rd Div.

Arrivals.

Col. A. E. Snell, C.M.G., D.S.O.
Major R. M. Gorssline, D.S.O.
Capt. G. McM. Carson, 1st Bde., C.G.A.
Capt. G. H. Stobie, 2nd Bde., C.G.A.
Capt. W. A. Watson, Tramways Co. C.E.
Capt. J. St. C. Mackay, Cdn. Corps Seige Park.
Capt. A. E. Wood, Labour Group.
Capt. D. Murphy Cdn. Red Cross.
Capt. D. G. Findlay.
Capt. W. J. Laurie.
Capt. N. McL. Harris.
Capt. B. M. Bayly.
Major B. L. Neily, C.A.D.C.
Capt. A. A. Garfat, C.A.D.C.
Capt. W. W. Wright, C.A.D.C.

No. 7 Canadian Cavalry Field Ambulance.

Lt.-Col. W. A. G. Bauld, D.S.O.
Major H. A. Snetsinger.
Capt. W. J. E. Mingie, M.C.
Capt. H. H. Mackenzie.
Capt. S. S. Lumb.
Capt. B. Lyon, M.C.
Capt. W. G. Blair.
Capt. K. I. Conover.
Capt. W. J. Rutherford, C.A.D.C.
Hon. Capt. M. de la Laille (Chaplain).
Hon. Capt. J. W. Melvin (Chaplain).

Departures.	*Arrivals.*
Capt. W. G. Blair.	Capt. H. V. Murray.
Capt. B. Lyon, M.C.	

No. 1 Casualty Clearing Station.

Lt.-Col. A. E. H. Bennett, O.B.E.
Major R. B. Robertson, O.B.E.
Capt. E. W. Connolly.
Major H. C. Mersereau.
Capt. J. C. Tull.
Capt. G. D. Fripp.
Capt. W. D. Ferris.
Capt. F. E. Rogers.
Capt. A. S. Kirkland.
Hon. Lieut and Qmr. C. W. McGill.

Arrivals.

Capt. A. W. MacBeth.
Capt. R. Peacock, C.A.D.C.

Departures.

Capt. E. W. Connolly, to England.

No. 2 Casualty Clearing Station.

Lt.-Col. P. G. Brown, O.B.E.
Major S. J. Streight, O.B.E.
a/Major H. G. Wood.
Capt. M. W. Macaulay.
Capt. H. H. Harvie.
Capt. D. C. Aikenhead.
Hon. Lieut. and Qmr. F. H. Leleu.
Capt. E. P. Jamieson C.A.D.C.

Arrivals.

Capt. A. L. McQuarrie.
Major R. Y. Kenny.
Capt. J. H. McRae.

Departures.

Major R. Y. Kenny, to No. 2 Staty. Hosp.
Capt. M. W. Macaulay, evacuated sick.

No. 4 Casualty Clearing Station.

Lt.-Col. S. Campbell, C.M.G.
Major C. Cartwright.
Capt. R. B. Mitchell.
a/Major J. Pullar.
Capt. T. W. Walker.
Capt. O. G. Donovan.
Capt. D. M. Lineham.
Major T. F. Cotton.
Capt. A. R. Alguire.
Hon. Capt. and Qmr. G. C. Vanwart.
Capt. E. H. Crawford, C.A.D.C.

Arrivals.

Capt. F. H. Quinn, C.A.D.C.
Capt. D. F. McIntyre.
Capt. W. H. Robbins.
Capt. J. A. McCollum.

Departures.

Capt. E. H. Crawford, C.A.D.C., to England.
Capt. D. F. McIntyre, to England.
Capt. D. M. Lineham, to England.

No. 3 Casualty Clearing Station did not serve with the Corps during this period.

APPENDIX III.

CANADIAN FIELD AMBULANCE (3 SECTIONS)—
(7 Motor Ambulance and 3 Horsed-Ambulance Wagons)—(Accommodating 150 Patients).

WAR ESTABLISHMENT.
(i) PERSONNEL AND HORSES.

Detail.	Personnel.						Horses.				Motor Cycles.	Bicycles.
	Officers.	Warrant Officers.	Staff-Sergeants and Sergeants.	Artificers.	Rank and File.	Total.	Riding.	Draught.	Heavy Draught.	Total.		
Lieut.-Colonel	1	–	–	–	–	1	1	–	–	1	–	–
Majors	2	–	–	–	–	2	2	–	–	2	–	–
Captains or Subalterns	6	–	–	–	–	6	2	–	–	2	–	–
Quartermaster	1	–	–	–	–	1	–	–	–	–	–	–
Sergeant-Major	–	1	–	–	–	1	–	–	–	–	–	–
Quartermaster-Sergeant	–	1	–	–	–	1	–	–	–	–	–	–
Staff-Sergeants	–	–	2	–	–	2	–	–	–	–	–	–
Sergeants	–	–	10*a*	–	–	10	–	–	–	–	–	–
Corporals	–	–	–	–	9	9	–	–	–	–	–	–
Privates	–	–	–	–	159	159	–	–	–	–	–	–
Bâtmen	–	–	–	–	10	10	–	–	–	–	–	–
Total (excluding attached)	10	2	12	–	178*b*	202	5	–	–	5	–	1

Attached—												
Dental Officer	1	–	–	–	–	1	–	–	–	–	–	–
" Sergeant	–	–	1	–	–	1	–	–	–	–	–	–
" Privates	–	–	–	–	1	1	–	–	–	–	–	–
Chaplain	1*c*	–	–	–	–	1	–	–	–	–	–	–
Transport details, C.A.S.C.—												
Staff-Sergeant (W.O., Class I)	–	1	–	–	–	1	1	–	–	1	–	–
Sergeants	–	–	3*d*	–	–	3	2	–	–	2	1	–
Farriers	–	–	–	2*e*	–	2	–	1	–	1	–	–
Corporal	–	–	–	–	1*f*	1	–	–	–	–	1	–
Drivers—												
For horsed vehicles	–	–	–	–	16	16	–	14	20	34	–	–
For motor vehicles	–	–	–	–	11	11	–	–	–	–	–	–
For spare draught horses	–	–	–	–	2	2	–	2	2	4	–	–
Spare	–	–	–	–	3	3	–	–	–	–	–	–
Train Transport—												
Drivers C.A.S.C.	–	–	–	–	*1*	*1*	–	–	*2*	*2*	–	–
Total (including attached)	12	3	16	2	213	246	8	17	24	49	2	1

(*a*) Includes 1 sergeant clerk per section.
(*b*) Includes 2 trained signallers per section (1 for bearer subdivision), 1 man per section trained in the use of carpenters' tools, and 1 clerk per section.
(*c*) If allotted by the G.O.C. out of the establishment of chaplains for the division.
(*d*) One for M.T. vehicles, 2 for horse transport vehicles.
(*e*) Includes a corporal. 1 drives the farrier's cart.
(*f*) For mechanical transport.

NOTES.—1. A field ambulance consists of 3 sections (Section A (headquarters), B and C). Each section is composed of 2 subdivisions (bearer subdivision and tent subdivision).
2. The above establishment includes 1 lance-sergeant and 6 lance-corporals, C.A.M.C.

CANADIAN FIELD AMBULANCE (3 SECTIONS)—*cont.*

WAR ESTABLISHMENT—*Con.*

(ii) TRANSPORT.

Detail.	Vehicles.	Drivers, C.A.S.C.	Horses.	
			Draught.	Heavy draught.
SECTIONS A, B AND C.				
Motor cycles	2	–	–	–
Bicycles for intercommunication	1*g*	–	–	–
Carts—				
Water (1 per section)	3	3	6	–
Maltese, for stores, materials for repairs, forge, etc	1	*h*	1	–
Wagons, limbered, G.S.—				
For cooks	1	1	2	–
For medical stores (1 per section)	3	3	6	–
Wagons—				
Ambulance (1 per section)	3 *i*	3	–	6
G.S., for medical stores and baggage (2 per section)	6	6	–	12
Cars, motor ambulance (3 for Section A, 2 each for Sections B and C)	7	11*jk*	–	–
Drivers—				
For spare draught horses	–	2	2	2
Spare	–	3	–	–
TRAIN.				
Wagon, G.S., for supplies	*1*	*1*	–	*2*
Total	27	32	17	20

(*g*) Rider will be detailed as required from the rank and file.
(*h*) Driven by one of the farriers attached to Section A.
(*i*) Each capable of carrying 4 cases lying down or 12 sitting up, or 2 lying and 4 sitting.
(*j*) One per ambulance and 50 per cent spare.
(*k*) Provided from Divisional Mechanical Transport Company.

APPENDIX IV.

CANADIAN ARMY CORPS—ORDER OF BATTLE

August 8, 1918, to November 11, 1918.

	War Establishments.		
	Officers.	Other Ranks.	Horses.
*Headquarters, Canadian Army Corps	85	254	40
Canadian Corps Cavalry—			
*Canadian Light Horse	25	444	499
*Royal Northwest Mounted Police	6	154	171
5th Canadian Divisional Artillery—			
Headquarters	6	15	9
13th Brigade C.F.A.—			
Headquarters	6	28	21
52nd Battery, C.F.A. (6 18-pdrs.)	5	189	165
53rd Battery, C.F.A. (6 18-pdrs.)	5	189	165
55th Battery, C.F.A. (6 18-pdrs.)	5	189	165
51st (How.) Battery, C.F.A. (6 4·5″ Howrs.)	5	191	169
14th Brigade, C.F.A.—			
Headquarters	6	28	21
60th Battery, C.F.A. (6 18-pdrs.)	5	189	165
61st Battery, C.F.A. (6 18-pdrs.)	5	189	165
66th Battery, C.F.A. (6 18-pdrs.)	5	189	165
58th (How.) Battery, C.F.A. (6 4·5″ Howrs.)	5	191	169
V/5.C. Heavy Trench Mortar Battery, C.F.A. (4 9·45″ Newton)	3	66	
X/5.C. Trench Mortar Battery, C.F.A. (6 6″ Newton)	4	53	
Y/5.C. Trench Mortar Battery, C.F.A. (6 6″ Newton)	4	53	
5th Canadian Divisional Ammunition Column	17	571	666

CANADIAN ARMY CORPS—ORDER OF BATTLE—*continued.*

	War Establishment.		
	Officers.	Other Ranks.	Horses.
8th Army Brigade, Canadian Field Artillery—			
Headquarters	6	28	21
24th Battery, C.F.A. (6 18-pdrs.)	5	189	165
30th Battery, C.F.A. (6 18-pdrs.)	5	189	165
32nd Battery, C.F.A. (6 18-pdrs.)	5	189	165
43rd (How.) Battery, C.F.A. (6 4·5″ Howrs.)	5	191	169
8th Army Brigade, C.F.A., Ammunition Column	4	175	227
Canadian Corps Heavy Artillery—			
*Headquarters	12	45	5
1st Brigade, Canadian Garrison Artillery (Howr. 9·2″)—			
Headquarters	6	17	3
3rd Canadian Siege Battery (6 6″ Howrs.)	7	189	
7th Canadian Siege Battery (6 6″ Howrs.)	7	189	
9th Canadian Siege Battery (6 6″ Howrs.)	7	189	
1st Canadian Siege Battery (6 9·2″ Howrs.)	8	223	
2nd Brigade, Canadian Garrison Artillery (Mixed)—			
Headquarters	6	17	3
1st Canadian Heavy Battery and Ammunition Column (6 60-pdr. guns)	7	284	
2nd Canadian Heavy Battery and Ammunition Column (6 60-pdr. guns)	7	284	
2nd Canadian Siege Battery (6 6″ Howrs.)	7	189	
6th Canadian Siege Battery (6 6″ Howrs.)	7	189	
4th Canadian Siege Battery (6 8″ Howrs.)	8	215	
5th Canadian Siege Battery (6 9·2″ Howrs.)	8	223	
3rd Brigade, Canadian Garrison Artillery (Howr. 8″)—			
Headquarters	6	17	3
10th Canadian Siege Battery (6 6″ Howrs.)	7	189	
11th Canadian Siege Battery (6 6″ Howrs.)	7	189	
8th Canadian Siege Battery (6 8″ Howrs.)	8	215	
12th Canadian Siege Battery (6 6″ Howrs.)	7	189	

CANADIAN ARMY CORPS—ORDER OF BATTLE—*continued.*

	War Establishment.		
	Officers.	Other Ranks.	Horses.
"E" Canadian Anti-Aircraft Battery—			
Headquarters	2	16	
No. 1 Canadian Section (2 13-pdr. guns)	2	48	
No. 2 Canadian Section (2 13-pdr. guns)	2	48	
No. 3 Canadian Section (2 13-pdr. guns)	2	48	
No. 4 Canadian Section (2 13-pdr. guns)	2	48	
No. 5 Canadian Section (2 13-pdr. guns)	2	48	
Canadian Engineers—			
*Canadian Corps Survey Section	5	175	4
1st Tramways Co., Canadian Engineers	20	363	23
2nd Tramways Co., Canadian Engineers	20	363	23
P.B. Co., Canadian Engineers	2	123	
3rd Tunnelling Co., Canadian Engineers	20	551	14
1st Army Troops Co., Canadian Engineers	3	138	28
2nd Army Troops Co., Canadian Engineers	3	138	28
3rd Army Troops Co., Canadian Engineers	3	138	28
4th Army Troops Co., Canadian Engineers	3	138	28
5th Army Troops Co., Canadian Engineers	3	138	28
Anti-Aircraft Searchlight Co., Canadian Engineers	5	130	
*Canadian Cyclist Battalion	16	305	15
Corps Signal Troops—			
*Canadian Corps Signal Company—			
*Headquarters	8	191	5
*No. 1 Canadian Motor Airline Section	1	43	
*No. 2 Canadian Motor Airline Section	1	43	
*"CE" "CF" "CG" and "CH" Cable Sections (each)	1	34	27
*Wireless Section			
*Signal Section, Canadian Corps Heavy Artillery			
Signal Subsection, 1st Brigade, C.G.A	1	28	4
Signal Subsection, 2nd Brigade, C.G.A	1	28	4
Signal Subsection, 3rd Brigade, C.G.A	1	28	4
Signal Subsection, 8th Army Brigade, C.F.A	1	21	17
5th Canadian Divisional Artillery, Signal Detachment	1	20	17

CANADIAN ARMY CORPS—ORDER OF BATTLE—*continued.*

	War Establishment.		
	Officers.	Other Ranks.	Horses.
Canadian Machine Gun Corps—			
*1st Canadian Motor Machine Gun Brigade. (A, B, C, D, E Batteries; each 8 Vickers).	26	406	
*2nd Canadian Motor Machine Gun Brigade. (A, B, C, D, E Batteries; each 8 Vickers).	26	406	
Canadian Army Service Corps—			
*Headquarters Canadian Corps M.T. Co.	4	12	
*Canadian Corps Troops M.T. Co. (721 Co. A.S.C.)	6	201	
*1st Canadian Div. M.T. Co. (415 Co. A.S.C.)	9	351	
*2nd Canadian Div. M.T. Co. (722 Co. A.S.C.)	9	351	
*3rd Canadian Div. M.T. Co. (724 Co. A.S.C.)	9	351	
*4th Canadian Div. M.T. Co. (725 Co. A.S.C.)	9	351	
5th Canadian Div. Artillery, Mechanical Transport Detachment	3	139	
*Canadian Engineers M.T. Co. (1,120 Co. A.S.C.)	9	375	
*Canadian Motor Machine Gun, M.T. Co. (1,119 Co. A.S.C.)	7	312	
8th Canadian Army Field Artillery Brigade, Park Section	1	53	
5th Canadian Divisional Train Detachment	4	98	110
Canadian Corps Siege Park (No. 402 M.T. Co. A.S.C.)			
Canadian Army Medical Corps—			
*No. 14 Canadian Field Ambulance	10	232	47
Nos. 1, 2, 3, 4, 5 Canadian Sanitary Sections (each)	1	27	
No. 8 Motor Ambulance Convoy (R.A.M.C.)	6	120	
Canadian Ordnance Corps—			
*No. 8 Canadian Ordnance Mobile Workshop (Light)	1	27	
*No. 26 Canadian Ordnance Mobile Workshop (Light)	1	27	
*No. 8 Canadian Ordnance Mobile Workshop (Medium)	1	31	

CANADIAN ARMY CORPS—ORDER OF BATTLE—*concluded.*

	War Establishment.		
	Officers.	Other Ranks.	Horses.
Canadian Army Veterinary Corps—			
*Canadian Corps Veterinary Evacuating Station	1	38	2
Labour—			
Canadian Corps, P.B. Officers Establishment.	20		
*Headquarters Canadian Labour Group	5	17	2
1st Canadian Infantry Works Co	6	500	14
2nd Canadian Infantry Works Co	6	500	14
3rd Canadian Infantry Works Co	6	500	14
*4th Canadian Infantry Works Co	6	500	14
*5th Canadian Area Employment Co	2	281	
*6th Canadian Area Employment Co	2	281	
*7th Canadian Area Employment Co	2	281	
*8th Canadian Area Employment Co	2	281	
*9th Canadian Area Employment Co. (Y.M.C.A. and Chaplain Services)	1	435	
Reinforcement Formation—			
†Canadian Corps Reinforcement Camp	77	728	79
Schools—			
Canadian Corps Infantry School	14	106	8
Canadian Corps Lewis Gun School	3	20	
Canadian Corps Signal School	7	70	4
Canadian Corps Machine Gun School	5	20	
Canadian Corps Gas School and Gas Services.	7	25	

NOTE.—Dental Laboratory, Chaplains and Postal Services at Corps shown under Headquarters.

*Corps Troops.

†Detail of the Canadian Corps Reinforcement Camp is appended.

75346—19½

CONSTITUTION OF CANADIAN DIVISIONS.

1st CANADIAN DIVISION.*

	War Establishment.		
	Officers.	Other Ranks.	Horses.
1st Canadian Infantry Brigade—			
Headquarters	9	34	22
1st Battalion (Western Ontario Regiment)	35	967	55
2nd Canadian Battalion (Eastern Ontario Regiment)	35	967	55
3rd Battalion (Toronto Regiment)	35	967	55
4th Battalion (1st Central Ontario Regiment)	35	967	55
1st Canadian T.M. Battery (8 3″ Stokes)	5	89	8
2nd Canadian Infantry Brigade—			
Headquarters	9	34	22
5th Canadian Infantry Battalion (Western Cavalry)	35	967	55
7th Battalion (1st British Columbia Regiment)	35	967	55
8th Battalion (Winnipeg Rifles)	35	967	55
10th Battalion (Canadians)	35	967	55
2nd Canadian T.M. Battery (8 3″ Stokes)	5	89	8
3rd Canadian Infantry Brigade—			
Headquarters	9	34	22
13th Battalion (Royal Highlanders of Canada)	35	973	55
14th Battalion (Royal Montreal Regiment)	35	967	55
15 Battalion (48th Highlanders of Canada)	35	973	55
16th Battalion (The Canadian Scottish)	35	973	55
3rd Canadian T.M. Battery (8 3″ Stokes)	5	89	8
Divisional Troops—			
Headquarters 1st Canadian Division	47	151	50
Headquarters 1st Canadian Divisional Artillery	6	15	9
1st Brigade, C.F.A.—			
Headquarters	6	28	21
1st Battery, C.F.A. (6 18-pdrs.)	5	189	165
3rd Battery, C.F.A. (6 18-pdrs.)	5	189	165
4th Battery, C.F.A. (6 18-pdrs.)	5	189	165
2nd (How.) Battery, C.F.A. (6 4·5″ Hows.)	5	191	169

CONSTITUTION OF CANADIAN DIVISIONS—*continued.*

1ST CANADIAN DIVISION—*concluded.*

	War Establishment.		
	Officers.	Other Ranks.	Horses.
2nd Brigade, C.F.A.—			
Headquarters	6	28	21
5th Battery, C.F.A. (6 18-pdrs.)	5	189	165
6th Battery, C.F.A. (6 18-pdrs.)	5	189	165
7th Battery, C.F.A. (6 18-pdrs.)	5	189	165
48th (How.) Battery, C.F.A. (6 4·5″ Hows.)	5	191	169
V/1.C. Heavy T.M. Battery, C.F.A. (4 9·45″)	3	66	
X/1.C. T.M. Battery, C.F.A. (6 6″ Newtons)	4	53	
Y/1.C. T.M. Battery, C.F.A. (6 6″ Newtons)	4	53	
1st Canadian Divisional Ammunition Column	17	571	666
1st Brigade Canadian Engineers—			
Headquarters	4	32	8
1st Battalion, Canadian Engineers	39	1,027	151
2nd Battalion, Canadian Engineers	39	1,027	151
3rd Battalion, Canadian Engineers	39	1,027	151
1st Pontoon Bridging Transport Unit, Canadian Engineers	3	69	71
1st Canadian Divisional Signal Company	16	401	144
1st Battalion, Canadian Machine Gun Corps—			
Headquarters	9	37	10
No. 1 Co. (A, B, C, D Batts.; each 8 Vickers)	18	486	113
No. 2 Co. (E, F, G, H Batts.; each 8 Vickers)	18	486	113
No. 3 Co. (J, K, L, M Batts.; each 8 Vickers)	18	486	113
1st Canadian Divisional Train (437–440 Cos. A.S.C.)	25	410	391
No. 1 Canadian Field Ambulance	10	232	47
No. 2 Canadian Field Ambulance	10	232	47
No. 3 Canadian Field Ambulance	10	232	47
1st Canadian Mobile Veterinary Section	1	20	24
1st Canadian Divisional Employment Company	2	273	

*Establishment of units are as laid down in W.E. XVI (Canadian Forces) issued August, 1919. The 1st Canadian Division only is detailed here.

CONSTITUTION OF CANADIAN DIVISIONS—*continued.*

2ND CANADIAN DIVISION.

4th Canadian Infantry Brigade—

Headquarters.
18th (Western Ontario) Canadian Battalion.
19th (Central Ontario) Canadian Battalion.
20th (Central Ontario) Canadian Battalion.
21st (Eastern Ontario) Canadian Battalion.
4th Canadian T.M. Battery (8 3″ Stokes.)

5th Canadian Infantry Brigade—

Headquarters.
22nd Battalion (Canadien-Francais).
24th Canadian Battalion (Victoria Rifles).
25th Battalion (Nova Scotia Rifles).
26th (New Brunswick) Battalion.
5th Canadian T.M. Battery (8 3″ Stokes).

6th Canadian Infantry Brigade—

Headquarters.
27th (City of Winnipeg) Battalion.
28th Canadian (North West) Infantry Battalion.
29th Canadian (Vancouver) Infantry Battalion.
31st Canadian (Alberta) Infantry Battalion.
6th Canadian T.M. Battery (8 3″ Stokes).

Divisional Troops—

Headquarters, 2nd Canadian Division.
Headquarters 2nd Canadian Divisional Artillery.
5th Brigade, C.F.A.—
Headquarters.
17th Battery, C.F.A. (6 18-pdrs.)
18th Battery, C.F.A. (6 18-pdrs.)
20th Battery, C.F.A. (6 18-pdrs.)
23rd (How.) Battery, C.F.A. (6 4·5″ Hows.)
6th Brigade, C.F.A.—
Headquarters.
15th Battery, C.F.A. (6 18-pdrs.)
16th Battery, C.F.A. (6 18-pdrs.)
25th Battery, C.F.A. (6 18-pdrs.)
22nd (How.) Battery, C.F.A. (6 4·5″ Hows.)
V/2.C. Heavy T.M. Battery, C.F.A. (4 9·45″).
X/2.C. T.M. Battery, C.F.A. (6 6″ Newtons).
Y/2.C. T.M. Battery, C.F.A. (6 6″ Newtons).
2nd Canadian Divisional Ammunition Column.

CONSTITUTION OF CANADIAN DIVISIONS—*continued.*

2ND CANADIAN DIVISION—*concluded.*

2nd Brigade Canadian Engineers—
Headquarters.
4th Battalion, Canadian Engineers.
5th Battalion, Canadian Engineers.
6th Battalion, Canadian Engineers.
2nd Pontoon Bridging Transport Unit, Canadian Engineers.
2nd Canadian Divisional Signal Company.
2nd Battalion, Canadian Machine Gun Corps—
Headquarters.
No. 1 Co. (A, B, C, D Batts.; each 8 Vickers).
No. 2 Co. (E, F, G, H Batts.; each 8 Vickers).
No. 3 Co. (J, K, L, M Batts.; each 8 Vickers).
2nd Canadian Divisional Train (672–675 Cos. A.S.C.).
No. 4 Canadian Field Ambulance.
No. 5 Canadian Field Ambulance.
No. 6 Canadian Field Ambulance.
2nd Canadian Mobile Veterinary Section.
2nd Canadian Divisional Employment Company.

3RD CANADIAN DIVISION.

7th Canadian Infantry Brigade—
Headquarters.
The Royal Canadian Regiment.
Princess Patricia's Canadian Light Infantry.
42nd Battalion (Royal Highlanders of Canada).
49th Battalion (Edmonton Regiment).
7th Canadian T.M. Battery (8 3″ Stokes).

8th Canadian Infantry Brigade—
Headquarters.
1st Canadian Mounted Rifles Battalion.
2nd Canadian Mounted Rifles Battalion.
4th Canadian Mounted Rifles.
5th Canadian Mounted Rifles Battalion (Eastern Townships Regiment).
8th Canadian T.M. Battery (8 3″ Stokes).

9th Canadian Infantry Brigade—
Headquarters.
43rd Battalion (Cameron Highlanders of Canada).
52nd Battalion.
58th Battalion.
116th Battalion.
9th Canadian T.M. Battery (8 3″ Stokes).

CONSTITUTION OF CANADIAN DIVISIONS—*continued.*

3RD CANADIAN DIVISION—*concluded.*

Divisional Troops—

Headquarters, 3rd Canadian Division.

Headquarters, 3rd Canadian Divisional Artillery.

9th Brigade, C.F.A.—
- Headquarters.
- 31st Battery, C.F.A. (6 18-pdrs.)
- 33rd Battery, C.F.A. (6 18-pdrs.)
- 45th Battery, C.F.A. (6 18-pdrs.)
- 36th (How.) Battery, C.F.A. (6 4·5″ Hows.)

10th Brigade, C.F.A.—
- Headquarters.
- 38th Battery, C.F.A. (6 18-pdrs.)
- 39th Battery, C.F.A. (6 18-pdrs.)
- 40th Battery, C.F.A. (6 18-pdrs.)
- 35th (How.) Battery, C.F.A. (6 4·5″ Hows.)

V/3.C. Heavy T.M. Battery, C.F.A. (4 9·45″).

X/3.C. T.M. Battery, C.F.A. (6 6″ Newtons).

Y/3.C. T.M. Battery, C.F.A. (6 6″ Newtons).

3rd Canadian Divisional Ammunition Column.

3rd Brigade, Canadian Engineers—
- Headquarters.
- 7th Battalion, Canadian Engineers.
- 8th Battalion, Canadian Engineers.
- 9th Battalion, Canadian Engineers.
- 3rd Pontoon Bridging Transport Unit, Canadian Engineers.

3rd Canadian Divisional Signal Company.

3rd Battalion, Canadian Machine Gun Corps—
- Headquarters.
- No. 1 Co. (A, B, C, D Batts.; each 8 Vickers).
- No. 2 Co. (E, F, G, H Batts.; each 8 Vickers).
- No. 3 Co. (J, K, L, M Batts.; each 8 Vickers).

3rd Canadian Divisional Train (676–679 Cos. A.S.C.)

No. 8 Canadian Field Ambulance.

No. 9 Canadian Field Ambulance.

No. 10 Canadian Field Ambulance.

3rd Canadian Mobile Veterinary Section.

3rd Canadian Divisional Employment Company.

CONSTITUTION OF CANADIAN DIVISIONS—*continued.*

4TH CANADIAN DIVISION.

10th Canadian Infantry Brigade—

Headquarters.
44th Battalion.
46th South Saskatchewan Battalion.
47th Battalion (Western Ontario Regiment).
50th Canadian Battalion (Calgary Regiment).
10th Canadian T.M. Battery (8 3″ Stokes).

11th Canadian Infantry Brigade—

Headquarters.
54th Battalion (Central Ontario Regiment).
75th Battalion.
87th Battalion (Canadian Grenadier Guards).
102nd Battalion.
11th Canadian T.M. Battery (8 3″ Stokes).

12th Canadian Infantry Brigade—

Headquarters.
38th Ottawa Battalion.
72nd Battalion (Seaforth Highlanders of Canada).
78th Canadian Battalion (Winnipeg Grenadiers).
85th Battalion (Nova Scotia Highlanders).
12th Canadian T.M. Battery (8 3″ Stokes).

Divisional Troops—

Headquarters, 4th Canadian Division.

Headquarters, 4th Canadian Divisional Artillery.

3rd Brigade, C.F.A.—

Headquarters.
10th Battery, C.F.A. (6 18-pdrs.)
11th Battery, C.F.A. (6 18-pdrs.)
12th Battery, C.F.A. (6 18-pdrs.)
9th (How.) Battery, C.F.A. (6 4·5″ Hows.)

4th Brigade, C.F.A.—

Headquarters.
13th Battery, C.F.A. (6 18-pdrs.)
19th Battery, C.F.A. (6 18-pdrs.)
27th Battery, C.F.A. (6 18-pdrs.)
21st (How.) Battery, C.F.A. (6 4·5″ Hows.)

CONSTITUTION OF CANADIAN DIVISIONS—*concluded.*

4TH CANADIAN DIVISION—*concluded.*

V /4.C. Heavy T.M. Battery, C.F.A. (4 9·45″).
X /4.C. T.M. Battery, C.F.A. (6 6″ Newtons).
Y /4.C. T.M. Battery, C.F.A. (6 6″ Newtons).
4th Canadian Divisional Ammunition Column.
4th Brigade, Canadian Engineers—
Headquarters.
10th Battalion, Canadian Engineers.
11th Battalion, Canadian Engineers.
12th Battalion, Canadian Engineers.
4th Pontoon Bridging Transport Unit, Canadian Engineers.
4th Canadian Divisional Signal Company.
4th Battalion Canadian Machine Gun Corps—
Headquarters.
No. 1 Co. (A, B, C, D Batts.; each 8 Vickers).
No. 2 Co. (E, F, G, H Batts.; each 8 Vickers).
No. 3 Co. (J, K, L, M Batts.; each 8 Vickers).
4th Canadian Divisional Train (794–797 Cos. A.S.C.)
No. 11 Canadian Field Ambulance.
No. 12 Canadian Field Ambulance.
No. 13 Canadian Field Ambulance.
4th Canadian Mobile Veterinary Section.
4th Canadian Divisional Employment Company.

NOTES.—(1) One Sergeant piper and five pipers authorized for Battalions having pipers.

(2) 36 Lewis guns per Infantry Battalion.

(3) Figures for Headquarters of a Canadian Division include:—

	Officers.	Other Ranks.	Horses.
Chaplains	20	..	1
Gas Services	5	15	..
M.P.P	..	35	18

(4) War Office letter 79 /62 (S.D.2) dated 4th May, 1918, authorized 100 other ranks to be added to the Establishment of Canadian Infantry Battalions.

BRITISH DIVISIONS* ATTACHED FOR VARIOUS PERIODS.

3rd Cavalry Division—a.m. 8th August; fought in Canadian Corps area as part of the Cavalry Corps.

1st (British) Division—night September 3/4th—night September 4/5th.

4th (British) Division—night August 26/27th—night September 3/4th.

11th (British) Division—September 24th—night October 12/13th.

32nd (British) Division—August 9th—August 12th.

49th (West Riding) Division (T)—October 10th—October 11th.

51st (Highland) Division (T)—noon August 23rd—noon August 29th.

56th (London) Division (T)—October 11th—October 16th.

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*The War Establishment of a Cavalry Division in August, 1918, totalled 9,422 all ranks.

At that time a British Infantry Division at full strength numbered 614 officers and 15,421 other ranks; as compared with a Canadian Division of 856 officers and 20,946 other ranks. The difference was partly due to the change in the composition of British infantry brigades, from four battalions to three, earlier in 1918. The remaining discrepancy is accounted for by the increased strength of Canadian divisional engineers and machine gunners.

Units and formations of the Royal Artillery not shown above were also temporarily attached in varying numbers for the different battles, so the strength of the Corps was not constant.

COMPOSITION OF CANADIAN CORPS REINFORCEMENT CAMP.

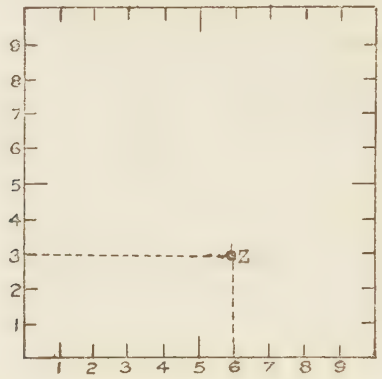
	Permanent Cadre. War Establishment.			Reinforcements.	
	Officers.	Other Ranks.	Horses.	Officers.	Other Ranks.
Headquarters	4	29	2		
Staging Camp	5	104	11		
1st Divisional Wing	10	95	11	120	2,400
2nd Divisional Wing	10	95	11	120	2,400
3rd Divisional Wing	10	95	11	120	2,400
4th Divisional Wing	10	95	11	120	2,400
Brigade Training Cos. (12) each	2	2			
Machine Gun Wing	14	98	8	39	450
Engineers Reinforcement Wing	10	100	12		
Garrison Artillery Reinforcement Depot	2	15	2	11	190
Canadian Field Artillery Pool—					
1st Canadian Divl. Arty. Reinforcement Depot	As required			26	1,250
2nd Canadian Divl. Arty. Reinforcement Depot					
3rd Canadian Divl. Arty. Reinforcement Depot					
4th Canadian Divl. Arty. Reinforcement Depot					
5th Canadian Divl. Arty. Reinforcement Depot					
8th Army Brigade, C.F.A. Reinforcement Depot					
"E" Battery, Anti-Aircraft Reinforcement Depot				2	12

COMPOSITION OF CANADIAN CORPS REINFORCEMENT CAMP—*concluded.*

Canadian Signals Reinforcement Depot (administered by Chief Signal Officer, Corps)	Based on 10% of War Establishment of Unit.
Canadian Ordnance Corps Reinforcement Depot (administered by A.D.O.S.)	
A.S.C. Reinforcement Depot (administered by O.C. C.A.S.C. Personnel)	
C.A.M.C. Reinforcement Depot (administered by D.D.M.S.)	
Canadian Postal Services (administered by A.D.P.S.)	
Canadian Light Horse (administered by O.C., C.L.H.)	
Canadian Cyclist Battalion (administered by O.C., Canadian Cyclist Battalion)	
Canadian Military Police (administered by A.P.M.)	
2nd Canadian Division Staging Camp (administered by O.C.,C.C.R.C	Temporary Formations.
Saskatoon Rest Station (administered by O.C., C.C.R.C.	
Canadian Corps Railhead Depot (administered by O.C., C.C.R.C.)	

INSTRUCTIONS FOR READING SQUARED MAPS.

1. The large rectangles on the map, lettered A, B, C, etc., are divided into squares of 1,000 yards side, which are numbered



1, 2, 3, etc. Each of these squares is subdivided into four smaller squares of 500 yards side. These smaller squares are considered as lettered a, b, c, d. (See Square No. 6 in each rectangle.)

A point may thus be described as lying within Square B.6, M.5.b, etc.

2. To locate a point within a small square, consider the sides divided into tenths, and define the point by taking so many tenths from W. to E. along Southern side, and so many from S. to N. along Western side; the S.W. corner always being taken as origin, and the distance along the Southern side being always given by the first figure. Thus the point Z would be 63; i.e., 6 divisions East and 3 divisions North from origin.

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